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ART. I.—*The Family of Araneides, or Spiders—their Natural History—the Effects and Treatment of their Bite—and the Use of their Web as an Article of the Materia Medica.* By CHARLES A. HENTZ, M.D., of Alabama. (Being an Inaugural Dissertation, submitted to the Trustees and Medical Faculty of the University of Louisville, February 1848, for the Degree of M.D.)

The Book of Nature is the great text-book of the medical man; spread out before him in rich profusion, it presents an unbounded field for unceasing observation and ennobling study.

First of all stands man—"the noblest work of God",—from the admirable and complex organization of whose physical structure, we descend by harmonious gradations, to the mite too small to be seen by the unassisted eye. At none of these steps in the scale of creation is it unprofitable to pause and observe, reaping as the rich reward of our observation and research, an exhibition of the same creative skill, the

same adapting Providence, which directs the varied functions of the human system.

In the study of the humble Spider we will not be unrewarded, for besides having displayed to us the beautiful adaptation of structure to the performance of function, and of instinct to the mode of life intended by nature, there are practical bearings connected with the subject which are not unworthy our attention.

Commencing our study anatomically then:—The body of the spider is divided into the thorax and abdomen; the head being consolidated with the former, the united segments bear the name of *cephalothorax.*

The legs are eight in number, composed of five joints, and united to the cephalothorax by a short double joint, called the *coxa.* There is a curious surgical and physiological fact relating to the legs, which we must allude to in this place.

If the limb be cut off with a sharp instrument, luxated or fractured, the spider soon dies from a hemorrhage or escape of the vital fluid which nature cannot staunch; if, however, the leg be pulled or torn off from its articultion with the coxa, which is always the case, when the spider is held by one of its extremities, and left at liberty to struggle for escape, no pain or inconvenience seems to be experienced—but little fluid is lost, and the spider soon returns to its pursuits with its wonted agility. The leg moreover, when torn off at this joint, is soon reproduced, re-appearing at the moulting period, at first slender and small, progressively increasing till the whole attains its natural size and strength.

The eyes are *six* or *eight* in number, situated upon the anterior, superior part of the cephalothorax, and varying in different genera, in their mode of arrangement, constituting thus a distinguishing characteristic in the classification of these genera. Microscopically examined, each eye is found to be composed of a *cornea;* a *crystalline lens;* a *vitreous body;* a *kind of chamber* containing an aqueous humor; a *choroid coat;* and a *retina.*

With this short view of some of the external characteristics

of the spider, let us consider some of its internal organs or systems by which the functions are carried on. And first of the

Digestive System.—The food of the araneides consists, for the most part, of the insects which they entrap in their webs or otherwise, and from which they abstract the vital fluid, whilst yet in a living state.

The mouth constituted for this kind of prehension, consists first, of two mandibulæ, opposed to each other, and possessed of a motion of apposition; these support, each, a hooked claw or fang, which is joined by a very free ginglymoid articulation, and has near its extremity a small perforation for emitting a poisonous fluid, which is secreted by a small gland lodged in an interspace of the muscles of the thorax, which gland is connected with this perforation by a fine excretory duct.

There are two maxillæ consisting, each, of a flattened lobe, and a lateral appendage, which supports the *palp* or *feeler*. At the junction and base of these maxillæ, is a *labium* articulated with the sternum.

When the prey is caught and secured, these fangs, after having given vent to their poison, to quiet the struggles of the victim, puncture and lacerate it, so as to let out the nutritious fluids which are squeezed out by the lateral or opposing motion of the maxillæ and conveyed through three pharyngeal orifices, into a broad and short œsophagus,—this empties into a stomach, or as M. Audouin terms it, "a gizzard," which is composed of four sacs, from which the alimentary canal is continued in the form of a straight, slender tube. We have here a confirmation of the general rule, with regard to the relative length of the intestines in herbivorous, and in carnivorous animals, for in the spider which is eminently of the carnivorous order, it is always short, and never convoluted, as is the case in many herbivorous insects.

This small intestine terminates in a dilated portion, to which is adherent externally, a kind of epiploon, filled with adipose granules; the dilated part gradually contracts, and then un-

dergoes a second dilatation before its termination. Opening into the lower portion is a pouch in which terminate vessels which are termed biliary vessels, though this is a strange location for the biliary apparatus, being in all superior orders of animals, even in other insects, attached to the anterior or chylopoietic portion of the alimentary canal.

The fatty granules which are attached to the dilated portion of the intestine constitute the chief portion of the abdominal contents, and exhibit a beautiful provision of nature, for the exigencies of the spider, in affording a fund of nourishment during the long season of hibernation, or during the long seasons that sometimes occur, when they do not entrap any food.

The study of the *circulatory and respiratory systems*, will be found interesting.

The heart consists of a long vessel situated in the median line, upon the back of the abdomen, and held in its situation by small ligaments or muscles. It distributes vessels to all portions of the body, and in addition to these arteries, has two vessels of a larger size than the rest, attached by each extremity to the central vessel or heart and communicating by means of numerous minute ramifications with the pulmonary branchæ or respiratory apertures which exist beneath the body. There are no veins, they being replaced by irregular cavities or sinuses, existing between the different organs of the body. The blood being sent out by the heart, is distributed as in the higher orders of animals, by means of the arteries, to the different organs of the body; becoming venous, it is collected into the sinuses above described, whence finding its way to the pulmonary or branchial apertures, it becomes arterialized and returns back to the heart by the vessels above described, which are dignified by the name of *branchio-cardiac* vessels.

There is an apparatus peculiar to the spider, and very beautiful in its structure and operation—viz: that for secreting and emitting the fluid which, concreting in the air, forms the web.

The organ in which it is secreted exists in the abdomen and is formed of tortuous vessels, united irregularly, and va-

rying in number and size—consisting essentially of two larger trunks and two smaller ones, recruited near their termination by a large number of small canals. The fluid secreted here passes out through spinnarets situated at the extremity of the abdomen, two long ones which are generally considered not to emit the fluid, but examined under a powerful microscope, distinct filaments of thread have been seen issuing from their surface; they are articulated and filiform—the others are four in number, short, and exhibiting on their surface a peculiar structure. The surface of each is perforated by an innumerable number of exceedingly minute apertures, through which the fluid passes as through a seive, hardening immediately on coming into the atmosphere, thus making as it is drawn out, the silken thread; these little filaments are of imperceptible fineness, till united together they form the cord, which from its extreme tenuity, we would scarcely conceive to consist of hundreds, nay, thousands of these primitive threads.

In securing its struggling victim, the spider, at the outset of the attack, or when the exertions of the insect are about to free it from the entangling threads, throws out a large cord or mass of this fluid uncoagulated, which wrapping around the limbs of the doomed victim, like the bird-lime on the plumes of the unfortunate sparrow, renders futile its most desperate writhings, and makes it an easy prey.

Having thus taken a short view of the principal anatomical characteristics of the spider, we will dwell for a while upon those characteristics which are less general—which serve to distinguish the different genera from each other. M. Walcknaer has made the following sub-division of the family—the classification being governed by the various habitudes and modes of life of the different genera, which genera are distinguished from each other by the arrangement of the eyes, form of the mouth, &c.

ARANEIDES.

MANDIBULÆ moving horizontally—

***Mygale*, *Oletera*, and *Filistata*—living in holes and fissures—8 eyes.**

MANDIBULÆ articulated vertically, moving laterally—

***Dysdera* and *Pylarus*—inclosing themselves in silken tubes—6 eyes, anterior,**

***Lycosa*, *Dolemedes*, *Ctenus*, and *Oxyopes*, running swiftly to catch their prey; *Attus*, *Lyssomanes*, and *Synemosyna*—leaping and springing with agility to catch their prey—8 eyes, anterior and lateral, very unequal in size.**

***Thomisus* and *Clubiara*, running and walking sideways and backwards; going abroad making web for nests; *Pholcus* (6 eyes) and *Spermophora*, going abroad, spreading long threads, making loose webs; *Tegenaria* and *Alagena*, spinning great webs of close texture like hammocks; *Herpyllus* wandering; *Epeira*, *Phyllira*, and *Tetraguatha*, spinning orbicular webs; *Mimetus*, wandering, predatory, taking the web of its victim; *Linyphia*, spreading regular webs of open mesh-work; *Theridion*, spreading irregular webs of open mesh-work—8 eyes, anterior, almost equal in size.**

This list contains all the genera most commonly met with in the southern part of our country, to which my limited sphere of observation has been confined. Several of them are not found in Walcknaer's table, having been adopted by my father, who has been for many years engaged in this department of natural history—the result of whose observations is now being published in the Boston Journal of Natural History.

The characteristic instincts, habitudes and artifices of each genus, form an exceedingly interesting subject for observation —exhibiting the same beautiful adaptation of means to an end, the same fitness of organization to the mode of life in view that characterizes all of Nature's works.

The *Mygale* and *Oletera*, which are of stout limb and sturdy organization, make their houses in the bosom of their mother earth, burrowing with mathematical precision, deep, round holes, which they line with an exquisitely delicate texture of finely woven silk, and cover the whole with a door or lid of trash, dirt, &c., hinged on with a silken lash, and fitting to the raised margin of the hole with the most perfect aptitude.

When alarmed or attacked, the spider, fixing a firm hold on the silken lining of his tube, seizes the lid with his anterior feet and with determined grasp, bids defiance to all intruders.

The *Dysdera* and *Pylarus* are as ingenious artizans as the preceding—selecting for the attachment of their silken tube, such crevices and holes as they find on old walls, log cabins, &c., spreading from the door of their den long straggling threads to give the first warning of the approach of the heedless insect who stumbles against them. The females of these genera are most unrelentingly ferocious to the unfortunate individuals of the other sex; the trembling male approaches the abode of the objects of his desires "with cautious steps and slow"—trembling with fearful apprehension, whilst the female stands at her door, on the *qui vive*, ready to pounce upon and devour him at the first caprice of appetite or passion.

The following genera, *Lycosa* and *Dolomedes* are appropriately termed *Saltatores*, from the wild and active life they lead. They are the spirited *Nimrods* of the family of Araneides—wandering about without house or home, save at the time of incubation, 'their hand is against every man and every man's hand against them.' They leap with agility, and secure their prey by boldly chasing and subduing it. The female bears upon her back the cocoon filled with eggs, and when hatched, carries the young monsters for sometime, piled up in hideous profusion. She defends the cocoon with the utmost courage, taking it in her teeth, and never relinquishing her hold whilst life remains, though limb by limb be torn from her. If it be forcibly taken away she loses all animation and suffers herself to be destroyed without resistance.

The *Attus* is not less bold, but lacks the open fearlessness of the preceding. Like them it wanders about, never making a home except during incubation or hibernation, when it spins a small tent of finely woven silk, just large enough for one or two to enter. It seeks refuge in holes and chinks—travels boldly, running when alarmed, as well backwards as forwards. It steals upon its prey with stealthy, imperceptible advances, till within pouncing distance, when with a sudden spring and

open jaws, it seizes and secures its victim, carrying it about in its mouth till the repast is completed.

The *Thomisus* is a clumsy looking, crab-like spider, crawling sideways, backwards or forwards with equal facility; the common place of abode for most species of this genus, is found in the cup of the sweetest flowers of Fall, where they lurk in ambush, feeding upon the insects attracted by the fragrance and sweets of the blossoms. During the bright, hazy days of Indian summer, this insect gathers in its long arm-like legs, a mass of flossy threads, and launches forth into the air, buoyed up by this light balloon and guided by a thread attached to its starting place, which it lets out like the string of a boy's kite, and with the spirit of a bold aeronaut, suffers the light breeze to waft it whithersoever it will.

The *Epeira* is the spider that spreads the beautiful polygonal or circular webs we see studded with dew drops on the bright mornings of spring, with a mathematical precision that would honor an Archimedes; often have I seen one, whilst toiling with the most indefatigable zeal, on finding that his circle was becoming an ellipse, retrace his steps for half the circumference and then return—putting in a *splice* as it were, to preserve the regularity of the web; they always, in stretching the circular threads, travel from the left to the right like the hands of a clock.

The *Mimetus* or *destroyer* as is indicated by the name, is the *highwayman* of the Araneides; roving about without any home of its own, plundering and pillaging every web that comes in its way, and after having devoured the inmate, taking quiet possession of its abode.

Thus we see that the apparently dull and insignificant spider is governed by instincts as curious and interesting as those we admire in insects of a more social and active character, but which are apt to escape our observation in this sedate and unobtrusive individual.

The gregarious bee or ant, whose astonishing sagacity has always excited the admiration and study of the observing mind, loses all its interest as a separate being—a single indi-

vidual puts into play none of the intelligence which actuates him as a part of the community, and is exceedingly dull and helpless; whereas the solitary spider, fitted bv nature for leading an independent life, and relying for defence and subsistence on its own individual resources, displays, as remarked by Goldsmith, "actions which to me, who have attentively observed them, seem almost to exceed belief."

The Spider's bite is rarely productive of consequences serious enough to require the skill of the physician or surgeon—but as such a thing *may* happen, it is well to know what to expect and what to do upon such an occasion.

The symptoms which occur when the poison enters the wound, which does not appear always to be the case, and when the effects are severe, which is rarely or never the case save in feeble and cachectic individuals, are thus described:—"The sting is always accompanied with pain, and is followed by local phenomena, such as redness, œdematous or livid swelling, pustules, and general symptoms, such as numbness, cold, priapism, coma, convulsions and death itself." These effects are extreme and met with only in exceedingly rare cases; nevertheless that they do occur, we have evidence in many cases recorded by authority which we cannot doubt.

More astonishing effects are yet on record. Thus Martin Schurig reports a case of chlorosis following upon a bite; Comstock, a case of St. Vitus' dance; Berner and M. Serrieres, a malignant pustule which they believed to be produced by the bite of certain spiders.

Whenever the severity of the symptoms is such as to require the interposition of art, the following treatment will be found effective:—"Fomentation of the part, and refrigeration by means of iced water or evaporating lotions—emollient and narcotic applications—warm bathing of the part—oleaginous and opiated embrocations, and if the inflammation be very intense, local bloodletting must be employed. Compression by means of the bandage is an efficacious means of relief."

Should the violent symptoms of prostration above describ-

ed, happen to ensue, they must be met by means of internal stimulation, the free administration of brandy, friction and heat to the extremities.

To illustrate what we may sometimes meet with in domestic practice, I will relate a case which happened at Saratoga in 1843. A boy 12 years of age was sent into the woods in the afternoon to drive in the cows. As he was strolling along he felt, as he thought, a brier prick his leg, and on looking down, saw a "large dark colored spider with big feet," on his pantaloons, which he brushed off and proceeded home, without paying much attention to it; however, he related the circumstance and complained of itching at night, three or four hours after the bite; a little red spot, without swelling, marked the spot; the pain rapidly increased as night advanced, physicians were called in, and saw no cause for the symptoms—no evidence of inflammation in the knee, which was the bitten part; they poulticed and cupped it, and gave opium internally. At three or four o'clock in the morning, they were called for again, and found the limb enormously tumefied, and the whole system affected with violent symptoms of prostration; all treatment proved unavailing, and convulsions and death closed the scene before morning. After death, the limb became speedily covered with purple blotches, the whole body became livid and discolored, and putrefaction advanced so rapidly that burial had to be performed on the same day.

We will conclude this department of our subject with a short description of the most venomous species which may be met with in our country.

There is a spider not often seen, but which may wound the foot of the plough-boy or gardener,—the *Mygale Truncata;* a huge and singularly shaped monster, about two or two and a half inches in length, the cephalo-thorax and legs of a deep piceous color, or nearly black, the first joint of the latter, rufous; a white membrane between the joints; the abdomen is singularly truncated, and marked with concentric grooves which give it a nutmeg appearance, and six circular impressions on its posterior or truncated face; the abdomen is callous

at this extremity, and is supposed to act as a means of defence in plugging the mouth of its hole when attacked. It dwells in cylindrical holes, dug in the ground, to the depth of one and a half to two feet; and is frequently turned up in gardening, digging post-holes, &c. The bite is said to be exceedingly poisonous; a cat bitten by one, which was placed upon its back, died in a few minutes.

There is another subterranean species, whose bite is as severe, perhaps, as that of the preceding, the *Lycosa fatifera;* a large and stout species of a bluish black color; the legs are somewhat hairy, and there is at the base of the mandibulæ a red elevation, which adds to the ferocity of its appearance. It is quite a common spider, dwelling in holes of about a foot in depth, which are beautifully lined with silk, and surmounted at the edge of the opening with a rim. formed of bits of trash, nicely joined by interlacing threads, and covered with the same lining, but unfurnished with a lid which protects so accurately the dwellings of some species of the Mygale. If a straw be introduced into the hole and let down to the bottom, the manful resistance of the tenant can be immediately felt, and if carefully withdrawn, the spider may frequently be brought out, clinging to the straw with the most unyielding energy, holding it firmly in its teeth.

There is a large species of the *Mygale*, commonly known by the name *Tarantula*, which is found in the southern part of the Union, in Texas and Mexico; which must be exceedingly venomous, judging from the size of its fangs, which are fully as large as the claws of a grown cat. It grows to a very large size—with its legs spread, covering a surface of four or six inches; it is very hairy, and of a deep brown color. Of the nature of its bite, I know nothing.

Another spider, not so large as any of the preceding, but full of venom, is quite common in our country; the *Theridion verecundum*, shaped like and belonging to the same genus as the common house spider; its body attains the length of about three fourths of an inch; the whole insect is of a deep black color, with the exception of a bright red spot beneath the

abdomen. Many varieties of this species have, along the longitudinal line of the back, two or three red spots, which are sometimes fringed with white.

It is found in the fields, in old stumps, hollow trees, fence corners, &c., hiding in some crevice, whence it spreads a scattering web of remarkable strength, which enables it to entrap the largest insects. I have no experience with regard to its bite, but it is said to be quite venomous, and judging from its vigor, the strength of its web, and the size of the insects which it captures, I think the conclusion a probable one.

The last portion of the subject, and that which has most to do with its acceptance as a medical Thesis, is the employment of the web of the spider, as an article of the materia medica, under the name of *Tela Aranearum.*

Other products of the spider, besides its web, have been used as medicinal agents.

The insect itself has been employed, internally and externally, from remote antiquity. Externally it has been applied to the wrists, mashed into a kind of poultice, to prevent the access of fevers. Etmuller has employed it, dried and pulverized, in doses of gr. xx or xxx, as an anti-periodic. As an aphrodisiac, it has been celebrated in olden time; Lorry relates a striking example of its effects in this way, and the people of Kamtschatka place great faith in its fecundating qualities. In Chili, according to Molino, there is a fat spider, as large as a hen's egg, which the children use as a plaything, and which is employed as a remedy for the tooth-ache.

The eggs have been recommended also for the cure of tooth-ache by Archigenus; the water distilled from black spiders, by Lister, in the treatment of wounds; oils have been prepared from them, for the cure of ulcers and malignant inflammation; an empyreumatic oil has been extracted from them, for the cure of warts, &c.

With nothing more than a mere enumeration of these chimerical relics of the dark ages of medicine, we will turn our attention, in conclusion, to the use of its web alone.

Externally, it is a popular and efficient application as an

hæmostatic—acting I presume, not from any specific virtue in this way, but from the softness of its texture, which becomes soon glued down by the coagulation of the blood in its meshes. It is also employed by some surgeons for covering arsenical paste and other escharotic applications to the surface.

But it is chiefly entitled to our consideration as an internal medicine; its efficacy as an antiperiodic, and quietus of the nervous system, has been testified to by men of the highest professional standing, and deserves, in my humble opinion, more attention from the members of our profession than it has received.

Dr. Robert Jackson, in the Medical and Physical Journal of May 1809 (Vol. XXI, No. 123) gives in detail, the results of his experiments with it; he was led to its trial, from being told by Dr. Gillespie, of Edinburgh, that he had cured by its use, an obstinate intermittent that had withstood every other treatment.

He relates several cases of intermittent fever, in which he used it with the most perfect success: First, in the person of a respectable soldier, who had long been troubled by the disease, which though stopped by the use of bark and arsenic, was ever recurring. He administered a five grain pill, two hours before the expected chill, and again, two more of them only a few moments before the time for the paroxysm. In this, and three other cases similarly treated, the usual periods passed over, without the slightest indication of the chill, and the disease remained cured; the influence of the imagination could have had no effect in any of the cases recorded, for none of the patients were aware of the nature of the remedy employed.

Encouraged by this success, he gave it in another case, in the midst of the paroxysm, whilst the patient was in a state of deadly collapse, from which, he most unexpectedly recovered, "in less than a minute," as if by a charm; the pulse becoming "calm and orderly, a very gentle, but warm perspir-

ation taking place immediately, and health being instantly restored."

From these decisive experiments, he came to the conclusion "that cobweb possesses an extraordinary, and altogether inexplicable power in calming irritations, and in diminishing excess of bodily torments," and was further induced to try it in other forms of febrile irritation—viz: "in the deliria, pains, spasms, and subsultus tendinum in fevers of the continued class, and having done so in various instances, was warranted in saying that the effect far exceeded his expectations; it gave tranquillity and sometimes, perhaps saved life."

He continued his trials, and "effected perfect cures in some troublesome spasmodic affections, and found that respite was procured in others that were fatal in themselves, and that seemed to stand beyond the reach of other means." He cites in point, a case of phthisis, and one of complicated organic disease, in which it proved a most excellent palliative, tranquillizing irritation, and producing a happy state of narcotism, not followed by any of the disagreeable results that follow on the administration of opium.

In conclusion he suggests that it be tried in hydrophobia, that dreadful and as yet incurable malady, which is "a disease of excessive irritability, and cobweb diminishes morbid irritability, and calms irritations of both body and mind, in a degree far exceeding any drug or medicine within the circle of our knowledge."

The web which is to be employed, is that of the *Tegenaria medicinalis, or Agalena naevia*, a wide hammock-like web, found in the corners of cellars, old dry-goods boxes, and other dark places. A description of this spider, by my father, together with a drawing and allusion to its medicinal use, is to be found in the Journal of the Academy of Natural Sciences of Philadelphia, (Vol. 11, p. 53, plate v. fig. 1.)

ART. II.—*A Case of Cæsarian Section; rendered necessary by the presence of a Tumor in the Vagina.* By W. H. Byford, M.D., of Mt. Vernon, Ind.

Mrs. Barlow, a farmer's wife, aged 26 years, was taken Nov. 13th, 1847, in labor with her third child. The midwife stated that she was called nine hours after labor commenced, which was at 7 o'clock P. M., on that day. At that time, the pains were hard, bearing down, and of considerable duration; she could not feel the membranes, but a large round body presented itself, which seemed to be about the size and feel of a child's head, of firm and hard consistence, just within the labia, admitting the fingers to pass up on the right side of the pelvis. She sat down by the bed side believing that a few more pains would deliver the head, and that the labor would soon be terminated. About 3 o'clock, A. M., on the 14th, while her fingers were in the vagina she felt a gush of water, and by passing the fingers high up on the right side of the pelvis she felt the scalp of what she supposed to be another child's head, which she thought solved the mystery of the detention, believing that two heads were engaged in the pelvis at the same time, one impeding the progress of the other. At 6 o'clock I was sent for, but being absent, the messenger returned without a physician; during the night he again came to town but with no better success, and it was not until 3 o'clock in the morning of the 16th that my partner, Doctor Conyngton, and myself visited her, when we found things as above stated. The waters had now been discharged over forty-eight hours,—pulse 110, face flushed, and the pains, which were very hard and frequent, had continued about the same, according to the statement of the midwives, of whom there were now two present, since 7 o'clock on the 13th, permitting the patient to take no rest. Upon examination per vaginam, a large osseous tumor was found springing from the plane and tuberosity of the ischium, nearly filling up the pelvis, leaving only one inch and a half space between its surface

and the opposite ischiatic plane, and extending to within the same distance of the sacrum, allowing of more space in the region of the right ischiatic notch. The fingers could be made to pass up over the tumor to the linea ilio-pectinea, which might be felt, as also the sacro-iliac junctions. The mucous membrane of the vulva, when the labia were widely separated, was seen to form a continuous covering to the tumor as far as it could be traced by the eye. No amount of pressure compatible with the integrity of the soft parts made any impression on the tumor, or in the least altered its position. The head of the child was found at the superior strait, pressing firmly down upon the tumor with occiput to the symphisis pubis. Doctor Newman now joined us in consultation. The practicability of craniotomy was first discussed. But it seemed evident to us all that in consequence of the smallness of the opening through the pelvis, and the distance which the head was removed from the external outlet, we could not lessen the child sufficiently to bring it through—hence hysterotomy seemed the only possible means of relief; and even, without further loss of time, this afforded but small hopes of succes, from the unfavorable state of the patient.

The nature of the case was made known to the patient and her friends, and we were particular in stating the arguments for and against the operation. They readily consented, after proper consideration, to any measure we thought might afford hope of recovery or respite from her sufferings.

By the time the preparations within our reach were made it was dark, and I was compelled to operate by candle-light. The patient was placed near the edge of the bed, with her right side towards me. I took my position to her right, facing her head, so that I could have free use of my right hand. Being thus situated, I performed the operation, assisted by Doctors Conyngton and Newman, in the following manner: I made a free incision on a line with the right semilunaris, extending from an inch below a line drawn horizontally from the umbilicus, seven inches in extent, towards the pubis, dividing the integuments and adipose tissue. I then by several

other strokes of the knife divided the different layers until I arrived at the peritoneum. After having exposed it for about two inches in length, in the upper angle of the wound, I raised a small portion by the forceps and divided it to a small extent, then cutting upon a grooved director until I could pass the fore-finger of the left hand into the wound, I directed the bistoury to the lower edge of the wound in the integuments. This being done the uterus was exposed to the extent of about six inches, the parietes of which were next divided by a few perpendicular strokes of the knife from above downwards, about an inch in extent, when the fore-finger again served as a director to the knife in conducting it to the lower extremity of the external wound. The membranes were now visible, and the shape of the child's limbs was seen through them. Lacerating these with the fingers, the child's feet, which lay in full view, were grasped, and the whole fœtus easily withdrawn.

I ought to have stated that we were satisfied of the death of the child prior to the commencement of the operation. It was above the medium size, and would have weighed nine pounds at least. Immediately after the removal of the child the hand was introduced into the wound, and the placenta and membranes taken away before the uterus had contracted much. It very soon assumed about the dimensions natural to it after delivery in ordinary cases. Pressure was kept upon each lip of the wound, from the time the external incision was completed, against the uterine parietes, in order to prevent the effused blood from entering the peritoneal sac. The object of the operation being thus accomplished, and the hemorrhage which was very inconsiderable, having ceased, the lips of the external wound were brought in complete apposition by means of four stitches and adhesive strips, except a small part of the lower angle which was now left open for the escape of any discharges formed in the wound itself. A compress over the wound and a roller around the abdomen completed the dressing, the whole operation having occupied about fifteen minutes.

The condition of the patient seemed to be very little altered, the pulse continuing about the same in frequency as before the operation. The tumor was again examined, and presented the same character as before.

We prescribed pulv. Dov. grs. viii. sulph. morph. gr. ¼, every four hours; patient to take no nourishment but bread and water.

17th, 8 o'clock, A. M., twelve hours after the operation. Patient slept some during the night; rested without pain until towards morning; pulse 120 rather hard and full. Abdomen a little swollen and tender, particularly on the left side; complains of oppression at the heart, and of pain, though slight, all over the left side and lower part of the abdomen. Bled to ℥xvi from the arm, and directed the abdomen to be fomented over the seat of the pain and soreness; continue the anodyne. The venesection relieved the precordial oppression, pain and tenderness to an extent that extorted from our patient expressions of gratitude; the pulse fell to 110, and grew more soft.

Six o'clock, P. M., swelling, pain, tenderness, and oppression have returned, with the same frequency of pulse, which is decidedly hard. Bled to ℥ xx. with marked improvement of all the symptoms; ordered to continue medicines and fomentations.

18th, 8 o'clock, A. M. To all appearance the patient is better; has had a tolerable night's sleep, excepting a short time in which she was troubled by nausea and slight vomiting; pulse 110, but soft. Skin moist; has urinated four times since the operation without difficulty; some coagulated blood passed from the vagina through the night, with ordinary after pains; has had no alvine discharge since the operation. Directed her to discontinue the opiate, and take calomel grs. xx, to be followed in four hours with senna and sulph. magnesia.

Five o'clock. The purgative has operated three times copiously, bringing away dark colored stools. The patient is much worse; her pulse 140 and feeble; surface bathed in cold clammy perspiration,—extremities cold, vomiting, great list-

lessness and apathy, countenance pale, great oppression in breathing—in short, sinking very rapidly. She expired at 8 o'clock next morning.

During the last twenty-four hours her abdomen was not swollen, tender nor painful, but the peculiar oppression about the heart continued until death.

The patient had a node on the left tibia, and the superior third of the right tibia was irregular along the surface.

The first labor of this woman was not more than ordinarily severe, tedious or difficult, but the second, which occurred on the 28th of August, 1845, was extremely so, and ever since that time she has complained of pain in the left side of the pubis. No autopsy was made.

It may be proper in conclusion, to state my reason for operating in the linea semilunaris instead of the linea alba, as is the general practice. It was because the uterus, in consequence of its right oblique position, offered its side to the knife in the last named place.

March 1848.

ART. III.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

I am gratified to be enabled to present to the readers of the Journal the Lectures of Professor Dubois, on Hemorrhage in the last three months of pregnancy, delivered during the past month, at the *Hopital des Cliniques.* They number four in all, two of which I shall embody in this, and the remaining two in my next letter.

Since the beginning of December last, five women in our wards have offered uterine hemorrhage, occurring at an advanced period of pregnancy, with the exception of one case, in which the accident came on at about the fifth month of gestation. In some of these cases hemorrhage was renewed during labor. In the case of three women it may be attributed

to an *accidental* cause. In the first to a fall on going up stairs, the abdomen coming in contact with a step. In the second to a violent paroxysm of coughing. In the third to a violent emotion. In the two remaining cases the hemorrhage was owing to the insertion of the placenta over the internal orifice of the cervix.

We have therefore to study three cases of *accidental* hemorrhage, and two cases of spontaneous or *unavoidable* hemorrhage. Let the cause have been what it may, accidental or spontaneous, there remains a constant fact throughout all the cases, viz: that in every one there has existed a separation of the placenta. We can therefore advance that *loosening of the placenta* has, in all these cases, been the *proximate* cause of the hemorrhage.

One of the females was a primipara; the four others were pregnant for the second, the third, the fifth, and the eighth time. One of them was brought to bed about the fifth month, two at the seventh and eighth months; and two at eight months and a half. Those with whom hemorrhage was spontaneous were delivered; the first at the eighth month, and the other at eight months and a half.

In most cases the hemorrhage was renewed. In the case of accidental hemorrhage resulting from violent coughing, the flooding did not re-appear during labor; it was also suspended during parturition in the cases of *placenta prævia.*

In all those cases it was an easy matter to ascertain the peculiar cause of the hemorrhage, accidental or spontaneous; this knowledge was acquired by the touch and by questioning the patient. All the five mothers recovered very well; their five offspring were born alive—even the one born at the fifth month, though it is necessary to add that this latter only lived a few hours, for it was not viable. The whole of the five children were examples of head presentation.

The treatment was very simple. For accidental hemorrhage, the woman was kept quiet in bed and given cool acidulated drinks, and this was found sufficient. If hemorrhage did recur in two out of the three cases of this class, it certainly did not

present the characteristics of a real flooding, being but a small oozing of blood. In the cases of cervico-placental hemorrhage (placenta prævia) the same treatment was, first of all, resorted to; then, a little later, we had recourse to opening the membranes, which is certainly the best means of saving the life of both mother and child.

Such, said Prof. Dubois, are the cases that we have observed. They bring up all the questions relating to uterine hemorrhage. It is not, however, my intention to investigate the whole of these; but I shall rather confine my remarks to the most prominent points in the history of those hemorrhages which occur during the last three months of pregnancy.

The phenomena we have just noticed as having been recently observed by us belong to the *external* or *apparent* hemorrhages. You will infer from this remark that there exist other kinds of hemorrhage. On this subject allow me to offer a word of explanation. In the five cases we have had under our care, hemorrhage was due to a rupture of the connexions existing between the ovum and the uterus, and the blood was enabled to flow through the genital organs and appear externally. But it might have so happened that the blood would not appear externally; its effusion might have been confined between the uterus and the placenta; under which circumstances it would have been termed *internal hemorrhage*. As this is both an interesting and curious scientific point, and one which you all know has given rise to no small amount of discussion, you will bear with me while I attempt to develope its more important features.

First of all then, hemorrhage following upon the rupture of vascular connexions existing between the uterus and the ovum, can take place inside the placenta itself, in the proper tissue of this organ; it is then called placental apoplexy. On the other hand, the apparatus which unites the infant to its mother may become ruptured in some part of its continuity—at the umbilical cord, for instance, either from the isolated vessels being spread over the membranes, or from a laceration of the funis effected during a manœuvre. Hence will arise various species of internal hemorrhages. They may be all inclu-

ded under the single term *intra uterine;* at the same time, however, they admit of sub-divisions, founded on the peculiarities of the case, into *simple intra uterine; intra placental* or *intra amniotic.*

Professor Dubois after promising to revert to this subject in its proper place, proceeded to treat of the cases which, properly speaking, belong to the present lecture. Before doing so he remarked, that he felt it incumbent on him to meet a consideration which undoubtedly would arise if it had not already arisen, in the minds of his hearers; viz: that in so short a time we should have witnessed so very large a proportion of these hemorrhages; five cases having occurred in the course of five weeks, which is in the proportion of five to one hundred and four cases of delivery; that is, one woman out of twenty delivered has been subject to hemorrhage. You must not believe that such is by any means the ususal course of things. The excess, in this instance, is due to the circumstance of many of these women having been brought to the hospital for the hemorrhage alone, who, had that accident not occurred, would have remained at home to be delivered. This large pro portion, this exalted figure that we have obtained, belongs therefore to a population far more numerous than that formed by the sojourners in this establishment. You find in this fact the reason why good statistics cannot be gathered in special establishments like this hospital, where difficult cases abound, if we compare what passes here and what takes place in ordinary practice.

Of the five cases of hemorrhage that occupy us, the subject of one alone was a primipara. But this fact, however, important might be its signification under other circumstances, possesses but little weight in the present case, for the reason that we have embraced in one group both accidental and spontaneous hemorrhage, and that primiparæ and multiparæ indifferently, are exposed to these accidents. Still it is satisfactorily established by the statistics of Professor Simpson, on this point, that spontaneous hemorrhage is much more frequent in multiparæ than in primiparæ. Thus, out of eighty cases of spon-

taneous hemorrhage, Professor Simpson has found eight women with child for the first time—that is in the proportion of one primipara to ten multiparæ.

Now with regard to the period of pregnancy at which delivery occurs, the remarks I am about to make, on account of the indiscriminate assemblage of various cases into one class, to which I have already alluded, are intended simply, and they must bear no other signification, to draw your attention to the remarkable coincidence existing between the period at which the two women with *placenta prævia* were delivered, and the period at which are delivered the greater number of women placed in similar conditions. This will be clearly shown by what follows. The two women in our wards laboring under this cause of hemorrhage were delivered, one at eight months, the other at eight months and a half—both, in other terms, at an advanced stage of their gestation. To those results I could add many others, derived from personal observation; but I will content myself at this time with acquainting you with the experience of Professor Simpson on this subject. Out of ninety cases, this gentleman found but three women who were delivered before the sixth month; the others were brought to bed as follows: five from the sixth to the seventh months: nineteen between the seventh and eighth months; nineteen from the eighth to the ninth month, and the forty-three others in the course of the ninth month.

You will remember the remark that I made concerning the late period at which spontaneous hemorrhage generally occurs. Baudelocque and those of his school, taking as a starting point an ill-founded opinion, insisted that this kind of hemorrhage ought not to occur later than the sixth month, or, at latest, the seventh month of pregnancy. This view originated in the idea entertained by those writers, that certain modifications took place at that early period by an incipient dilatation of the uterine orifice. From well authenticated facts we believe ourselves justified in asserting that such is not the fact, but that the lower segment of the uterus and cervix give way to the enlargement of the uterine cavity in the majority of cases,

only in the course of the ninth month. This opinion I consider as being far better supported than the one set forth by Baudelocque.

As to the *cause*, we believe ourselves justified in admitting, that in some of the cases hemorrhage came on accidentally, as from a fall, violent coughing, emotions, &c. I will revert one instant to this point on account of the denial by some authors, that the aforesaid causes can induce hemorrhage at an advanced period of gestation. I refer to Mesdames Boivin, Lachapelle, and M. Velpeau. These authorities found their opinion on the fact, that the uterus, in pregnant women, cannot separate that which is contained from that which contains, for the reason that the mechanical action is simultaneously and equally sustained by both bodies. But I beg you will remark, that this is only apparent. When we see, in a fall, the various parts of a body separated by a kind of sliding movement, we must admit that two bodies connected by a third one, of a less solid nature than those it is destined to connect, may be divided, one from the other, by the destruction of the uniting body. In the present case the two bodies are the uterus and the placenta; their connection is effected by means of a vascular tissue which must tear when a violent action depresses the uterine parietes.

Professor Dubois here related a case of a woman who while at the Maternité, had attempted to carry under her arm a folding bed on which there lay a mattrass. Just as she made the effort she felt a sort of cracking sensation in the abdomen which frightened her a good-deal; a very short time afterwards she had a flooding, and it was easy, sometime later, to ascertain that the placenta had been detached at a considerable distance from the orifice.

With all these women, said Professor Dubois, the placenta alone was principally loosened, and this fact may be easily conceived from the following anatomical data. At an early period of pregnancy the ovum adheres to the whole internal surface of the uterine cavity by the medium of general vascular connections. These connections are in every way important

as they are called upon to contribute towards the development of the ovum by allowing its drawing from the surrounding surface the elements necessary for its growth.

At a more advanced period of gestation the important vascular connexions become limited to the adherences which are permanent between the placenta and the uterus, in such a manner that the separation of what may still remain of the old general connexions is followed by a slight effusion of blood in ordinary cases; although I do not mean to say that in one particular case, where the vascular element, instead of being atrophied as in the majority of cases it really is, it may not still retain sufficient permeability for the loss of a certain quantity of blood; what I wish to impress on your minds is, that in the great majority of cases abundant hemorrhage implies detachment of the placenta.

Here a question offers itself which sometimes perplexes the mind by the vagueness of the solution generally given to it; namely, which of the two individuals is it, the mother or the child, that loses blood during hemorrhage? From the very facts now under consideration we can in some degree elucidate the matter. Were the children of our five women born alive? Yes; they were all born alive, and we must add, that one out of the number was born alive at the moment its mother was growing cold and pale from the effects of severe hemorrhage; and, moreover, that this same child happened to be the one born under the most unfavorable conditions—that of not being viable. The child in question was born, as I have before said, at the fifth month, but did not live more than a couple of hours. From this fact alone we can easily divine, that the blood lost during hemorrhage, belonged to the mother alone and in no wise to the fœtus. It is from the inner side of the uterus that the blood issues forth, although laceration of the uterine surface of the placenta may also cause a loss of blood to the child. I will ask if, hitherto, in cases where hemorrhage had placed the mothers life in danger, the children have been found deprived of blood? no; certainly not; on the

contrary those children always appear full of blood and even congested.

Professor Simpson has adopted the view that the blood issues from the loosened portions of the placenta, and that it takes place without the fœtal existence being endangered. Professor Simpson alludes to the fact of the existence in the placenta of a fœtal portion and a maternal or uterine portion in which the blood of the mother circulates through canals. "Blood," says Professor Simpson, "may be effused out of those canals, without there being any oozing of the blood from the uterine surface; the arteries of which are long and obliterated by laceration, and the opened veins themselves are closed up by a sort of membranous valve." Professor Dubois said that his experience led him to reject this explanation, and he would ask of Professor Simpson the question, whence the blood proceeds in hemorrhage occurring after delivery at a moment when there remains neither fœtus nor placenta *in utero?* If the blood is not furnished by the long, slender, and lacerated arteries, it must be then by the uterine veins; and these uterine sinuses,—those canals which constitute a real cavernous tissue,—whence would they receive their blood, if not from the arteries? I prefer entertaining the opinion that the undetached portion of the placenta keeps up circulation in the uterine parietes not only in that portion of them which corresponds to the adherent portion of the placenta, but also in that other portion from which the placenta has become detached. The blood thus called to the uterine surface, flows in an equable manner towards its whole substance, and is there effused when it is called to the part where the detached placenta can receive it no more. Hence the extravasated blood oozes downwards between the uterine parietes and the ovum, and when sufficient in quantity, appears externally at the genital parts. Thus it is the mother that loses the blood, and it is but in exceptional cases that the blood comes from a solution of continuity in any point whatever of the circulatory apparatus of the child.

In the cases of accidental hemorrhage we have had occa-

sion to observe lately, the appearance of blood did not take place immediately after the action of the determining cause. A few hours elapsed between the accident which produced the separation of the placenta, and the manifestation of the hemorrhage itself. Although this be the rule in cases of this nature, I think proper, nevertheless, to lay the fact before you in order to give an explanation of it. I say, in cases of accidental hemorrhage, it is rare to see the flooding follow immediately the cause which gave rise to it, and I add, that the fact is owing to the placenta being attached more or less in the vicinity of the uterine orifice; for there exists a well marked succession in the phenomena which then occur. The placenta is loosened first of all; then an effusion of blood is effected between the placenta and the uterus; then the effused blood glides down between the uterine parietes and the membranes; finally it passes through the orifice, down the vagina, and makes its appearance at the vulva. You will therefore understand that these phenomena being accomplished in the order in which I have described them, must require a more or less considerable space of time to reach their final manifestation—external hemorrhage—according to the longer or shorter course the blood has to follow. In two of the women who have come under our care, the placenta was situated far from the orifice; with the third one—she who fell on the stairs,—the placenta was not very distant from the os uteri; for this reason hemorrhage soon became apparent in the latter case. The circumstance of the hemorrhage not following immediately the action of the cause which produces it, will again be referred to when we come to speak of the diagnosis of this kind of hemorrhage.

In two of our cases the hemorrhage was at first suspended, and then reappeared during labor; in the third case the hemorrhage was arrested by the simple means we have already alluded to, and it did not again occur. This course is the natural one, and forms the principal characteristic sign between this class of hemorrhages and that designated by Madame Lachapelle *cervico placental hemorrhage.*

Another circumstance worthy of remark is, that the hemorrhage although suspended, nevertheless brought on premature labor; that is, at five months, seven months, and eight months and a half. This is owing to the effusion of coagulated blood between the uterus and the ovum having determined certain changes which have roused the uterine contraction; and it is worthy of being remarked, also, that labor was not induced immediately after the first appearance of the blood. If things did not take place in that manner, it is probably attributable to the effused blood being in those cases insufficient to bring on contraction; or else the uterine parietes having at first proved insensible to the irritation caused by coagula.

If, now, we come to examine what passed in the two cases of cervico-placental hemorrhage, we find that in one case the flooding was often repeated before the end of the eighth month, at which period the woman was delivered; and that in the second case the first appearance of blood took place at eight months and a half, and that this woman only flooded that single time. There certainly is a most remarkable difference between these two cases. It would be natural to think that in one instance labor had been brought on by the abundant and reiterated floodings, while in the second, that gestation had attained a more advanced period by the fact alone of the hemorrhage being moderate; but we must here call in another cause, *uterine excitability*, which was much greater in one case than in the other.

You will remark, that in cervico-placental hemorrhage there are repeated floodings, separated from each other by intervals, during which there is but a slight oozing of blood, more or less marked. This kind of hemorrhage differs, therefore, in its course from accidental hemorrhage, which has been suspended, or at least, only manifested its return, in two cases, by a slight oozing, while in the third case it did not reappear at all. This is owing to the cause of cervico-placental hemorrhage being a permanent one. The modifications undergone by the uterine orifice cause it to withdraw gradually and continually from those points of the placenta to which it adhered,

so that the flow of blood is, in some measure, continually kept up.

In the case of *accidental* hemorrhage, on the contrary, the cause is temporary. There is no reason why the flooding being once suspended should be renewed, unless very active circulation or a certian general state of the body should help to overcome the resistance which nature alone, or aided by art, opposes to this kind of hemorrhage. This natural resistance is the general hæmostatic means opposed by nature and favored by art in all cases of hemorrhage. I mean the deposit of coagulated blood at the ends of the divided vessels, and which arrests the ulterior escape of blood. I dwell upon this fact because it cannot occur in cervico-placental hemorrhage. What we have said of the mechanism of the latter will lead us to understand that the action of this hæmostatic means could only prove in similar cases, to be of a temporary, and therefore, of an insufficient nature.

As to the possibility of stopping hemorrhage dependent upon *placenta prævia*, by other means, I shall revert to this point a little later.

These two cases do not suffice, said Professor Dubois, to give you a complete idea of this kind of hemorrhage. Allow me to add some peculiarities drawn from facts of a similar nature. Thus we might have met with a phenomenon which we were not called upon to witness in our two cases, that is the sensation of a sort of cracking noise which precedes the manifestation of hemorrhage. Again it is not impossible that, in certain cases of placenta prævia, the hemorrhage should only occur once,—that the hæmostatic means should be successful in putting an end to the flooding. There are cases in which the edge of the placenta is inserted over the orifice of the uterus, and it may easily be conceived that if, with such a disposition of parts, a clot should obliterate the loosened part of the placenta, dilatation might continue without destroying any further connections. Thirdly, other cases might have offered to your observation of repeated floodings, succeeding one another at very short intervals, during which there continues an

oozing of blood, these losses of blood not being followed by uterine contraction, and the patients becoming pale and œdematous. Then you might have witnessed the nervous accidents properly belonging to patients weakened by a considerable loss of blood; you might have seen labor effected during a copious gush of blood. Then again, labor might have been induced by one single flooding, delivery being effected in the midst of a sudden discharge of blood. You might have witnessed the death of the child born in a similar condition, and also the death of the mother a short time after delivery; and last of all, you might have been present at an overwhelming hemorrhage which would have taken off the patient before she had time to be delivered.

Such are the cases you might have been called upon to see, gentlemen, if it had been your lot to attend a greater number of examples of this nature. Such are the elements which are ordained to fill the measure of your instruction, and complete the extent of your experience on this subject.

Diagnosis.—The diagnosis of this kind of hemorrhage, easy for the cases which it has been our lot to observe, may, however, include several important points which must be taken into consideration. The first point consists in determining the source of the flooding. The solution to be given to this problem is easily conceived when we know that the blood which appears at the vulva at an advanced stage of pregnancy may have many sources, and be quite foreign to the connection which unites the ovum to the uterus. Thus the blood may come from the internal surface of the external parts of generation, as it has been seen to do in cases of laceration of those varicose veins which lie on the inner side of the labia majora. The rupture of similar vessels may take place along the vaginal parietes also. The loss of blood might equally arise from a pathological state of the cervix.

Professor Dubois here quoted the case of a woman with whom, said the person who described the case in a letter, there existed hemorrhage due to placenta prævia. Professor Dubois found in this case, that the external surface of the cer-

vix offered numerous granulations, adhering to the tissue of the organ itself, and giving to the touch the sensation of placental cotyledons. There existed in this case a cancerous affection of the cervix, which had proved to be the cause of the flooding.

The second point to be examined in order to elucidate the diagnosis, consists in ascertaining whether hemorrhage is due to *accidental causes* or to *placenta prævia*. This question will be answered by the interrogation of the woman and by the touch.

By gathering from the woman the history of the case up to the moment of our investigation, we endeavor to establish the period of pregnancy attained when the hemorrhage first declared itself; and to learn from her if she is able to attribute the flooding to any appreciable cause.

By the touch we endeavor to find out,

1st. Whether there exists any lesion which might be taken for the separation of the placenta from the uterus, and

2d. Whether in cases where the hemorrhage has evidently its source within the uterus, the insertion of the placenta is near to, or far from, the orifice.

In some of the cases which form the subject of these lectures, we have been able by the *touch* to ascertain that the placenta was not present over the orifice, by the fact that the finger introduced into the os uteri met with membranes and sometimes with the head of the fœtus; moreover, in one case we were able to feel the sutures and the fontanelles through the thin, distended lower segment of the uterus. On the other hand, in one case out of those which now claim our attention, the placenta itself was felt seated inside the cervix; and in the other case we have found, at the orifice itself, a certain thickness of membranes and a peculiar spongy state of the part examined, which if they did not constitute a positive sign of the presence of the placenta, were, however, strongly indicative of it.

But now let us resume each of the elements of the problem, in order to appreciate their full signification. To return to the interrogation of the patient: why is it that we endeavor

to learn the precise moment of the manifestation of the hemorrhage? Because it is at a period of pregnancy pretty well determined that we see occur the floodings due to placenta prævia.

Now that this element of the question is found in all cases, we cannot say is positively true, for we should be contradicted by two out of our three cases of accidental hemorrhage, in which the flooding took place at a period when it generally appears in cases dependent upon placenta prævia.

Then, again, why do we endeavor to ascertain, from the woman, if any cause easily appreciated by herself, has produced the hemorrhage, if it is not to elucidate the history of the case by the addition of this other fact, that the flooding appears to be spontaneous in cases of placenta prævia?

Now can the touch throw light upon all these questions? Unfortunately we do not find it capable of doing so. First of all, in primiparæ, the os uteri remains closed up until near the term of pregnancy, and allows, nevertheless, a considerable quantity of blood to ooze through, without the finger being able to detect the presence of the placenta over the lower segment of the uterus. The diagnosis will be rendered more difficult still, if, desirous to judge of the thickness of the membranes or of the lower segment of the uterus itself, we find neither the head nor any other prominent and solid part of the fœtus, to serve as a point of contact by which, owing to the propulsion of the finger, we can measure the thickness of the intervening parts.

Another circumstance which may sometimes offer a temporary but real difficulty in the diagnosis, is the presence of a clot of blood in the cervix. At the moment we present the finger to ascertain the nature of the hemorrhage we find the flooding ceased and the os uteri closed up by clots. It is in similar circumstances, we must learn to yield to a natural effort, and that we must know how to temporize in presence of a plug made by nature. It has been said if blood flows in greater quantity during a contraction of the uterus, that it will be a sign of cervico-placental hemorrhage; this precon-

ceived idea, which would seem to mean that, in such cases, the hemorrhage had its source in the placenta more or less compressed by the contracting uterus, is by no means borne out by experience. There is no doubt but that the contraction of the womb will squeeze out the blood with more vehemence, but that phenomenon will take place let the blood proceed from whatever source it may, so long as it comes under the action of the uterus.

I have passed now in review the difficulties of the diagnosis, though it must be confessed those difficulties are of an exceptional nature, and one may, with prudence, care, and experience nearly always arrive at the knowledge of a placenta placed over the os uteri, but not so frequently when the placenta is grafted into some of the neighboring points of the uterus.

The result, I have said, has been fortunate both for the mothers and their children. But on this score we must not be led into erroneous opinions by the cases observed in our wards;—first, because those cases are not numerous; secondly, because in this limited number of cases we have three of accidental hemorrhage, and these are seldom of a serious nature; thirdly, because in one of the cases of placenta prævia the figure of the placenta was such as to allow its detachment to be effected principally in a point where there existed a membranous expansion between the vascular portion, which was indented like the figure of a heart. In this singular case, therefore, very few vessels have been lacerated during dilatation, and the hemorrhage may have been much less serious owing to the anatomical disposition of the placenta; fourthly, because those cases happened in our wards at a moment when the sanitary condition of the hospital was in every respect satisfactory. At first sight of the matter one might be inclined to think that hemorrhage occuring at the moment of labor ought to obviate or at least diminish the danger of ulterior inflammation. But it is not thus that things terminate; the contrary, even, is the general law. The women who have lost a great quantity of blood are far more exposed than others to

fall ill during the puerperal state, and with less chance of recovery, as they are already brought very low by the loss of blood, and unable to sustain, to any extent, the antiphlogistic treatment. In short, those women are the most liable of all, to fall victims to puerperal fever.

You might also be led to believe from what you have recently seen at the *Clinique*, that we have had to deal with accidents of minor importance. Be persuaded to the contrary, gentlemen; hemorrhage occurring in the last period of pregnancy is the most serious, the most dangerous accident that our profession ever encounters. Thus in 389 cases of hemorrhage collected by Professor Simpson, there occurred 133 deaths, or one woman out of three. The average of deaths amongst the children of these women is also one out of three. These, you will remark, are results equal to those found in the gravest diseases. Death, during or after hemorrhage, may be due to various causes:

1st. *Repeated flooding.* 2d. *Obstetric operations*, rendered necessary by the accident and practiced with the view of saving the mother or the child. 3d. *Derangement produced in the placento-fœtal circulation by the child itself.*

I must remark, as relates to this latter cause of death, that it is not indifferent for the child, whether the placenta should be placed in the lower segment of the uterus, or higher up in the cavity of the organ. The body of the child which has a tendency to occupy the declivity of the womb, presses, principally, during the standing position on the lower segment of the uterus and on the placenta when the latter is inserted in that region of the uterus. The placento-fœtal circulation must be more or less deranged by the compression exercised upon it. If you question a number of pregnant women, you will learn that in certain attitudes, during decubitus, for instance, the fœtus becomes at times so turbulent that they feel obliged to change their position. There are many reasons to believe that this or the other position only becomes uncomfortable to the fœtus when there is some derangement in the fœto-placental circulation.

The children who were born of the two women which presented examples of placenta prævia, offered head presentations. This is a rare occurrence in cases of this nature, for the insertion of the placenta over the orifice is a predisposing cause to abnormal presentations. Thus, Professor Simpson, out of 91 cases has found 21 trunk presentations. This may be attributed to two causes; 1st, the children are often born in a state of putrefaction, on account of death produced by the compression just alluded to, and in that case the presentation is nearly always abnormal: 2d, in order that a child may pass through the brim, it is necessary, first of all, that the inferior segment of the uterus should begin by placing itself in the brim, and then the concavity of that segment so placed receives the vertex, &c.; but when the placenta occupies the lower portion of the uterus, the head of the child has no tendency to rest on a filled up or flattened concavity. Hence occurs what happens in a case of malformed pelvis, in which the head cannot place itself with ease, but turns away from the obstacle, advances with greater facility on one side of the upper pelvis, and by that manœuvre, a presentation of the extremity of the ovoid is converted into one of the lateral region, right or left of the fœtus.

This letter ought to have gone to you by the last steamer, but the political commotion, of which Paris has just been the theatre, arrested the mails and I was unable to get it off in time. The revolution appears to be complete, and all for the present is order and peace. A week ago Louis Phillippe abdicated the throne; Paris was never more profoundly tranquil than to-day.

Paris, March 1st., 1848.

REVIEWS.

Art. IV.—*The Practice of Medicine: A Treatise on Special Pathology and Therapeutics.* By Robley Dunglison, M.D. Professor of the Institutes of Medicine, &c., in the Jefferson Medical College, Philadelphia; Lecturer on Clinical Medicine, etc. Third edition—2 vols. Philadelphia: Lea & Blanchard. 1848.

A Treatise on the Practice of Medicine. By George B. Wood, M. D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania; one of the authors of the Dispensatory of the United States of America, etc. 2 vols. Philadelphia: Grigg, Elliott, & Co. 1847.

In placing these two works at the head of this article, it is not our design either to draw a parallel between them or to analyse both of them. The treatise of Professor Dunglison has been before the profession for sometime. We may therefore pass it by, merely observing that the industrious author has availed himself of all the recent advances in medical pathology and therapeutics in order to make this edition a truthful reflection of the present state of medicine. It is certainly the most complete treatise of which we have any knowledge. There is scarcely a disease which the student will not find noticed.

The treatise of Professor Wood being the more recent is less known, but is not less deserving of estimation, and we shall devote a few pages to a cursory notice of it. In some respects it differs from most of the treatises that have preceded it. It is divided into two parts: part first, constituting about one-third of the first volume, is occupied with the subject of general pathology and therapeutics. In the second part —that of special pathology—the diseases belonging to the ob-

stetrician and surgeon in common with the physician—viz: diseases peculiar to the female, and those of the eye, ear, and male generative organs—are not noticed by the author; but by way of compensation there is a much fuller discussion of other subjects. Again Dr. Wood does not hurry over what are considered the less important diseases; he observes very correctly, we think, "that every disease which is at all worthy of notice should be well understood."

In the first part the author speaks first of "the constituent forms of disease, or of those derangements which, by their various combination, constitute diseases as we ordinarily see them;" secondly of etiology; thirdly of symptomatology; and lastly of the general principles of treatment, or general therapeutics. All these chapters contain much that is valuable, but which we cannot present in a way to be of service to the reader and to do justice to the author. A few points only can be noticed by us.

All diseases may be referred to the fluids or solids of the body, or to both. The blood may be considered as the only fluid subject to original morbid changes. It is the source of all the fluids, except the lymph and chyle, and as these enter directly into its constitution they convey into it all the deleterious properties with which they are charged. The section on diseases of the blood is concise and presents about all that is known on the subject.

Diseases of the solids are considered under two divisions; one including all those that proceed from mechanical and chemical causes; the other, those arising from influences exerted on the vital properties The latter includes *irritation*, *inflammation*, *depression*, *congestion*, *fever*, and *peculiar morbid products*, as tubercle, melanosis, cancer, &c. Some of these are not elementary—fever, for example—but as it is not possible to analyze them, they may be placed among the simpler forms.

The term irritation is used by the author in its etymological sense, as signifying a state of excited or exalted action. This exaltation above the healthy standard, may be in the line of

health, or more or less deflected from it, and present something peculiar or *specific*. So with depression, or, as it is commonly termed, sedation. But depression must not be confounded with debility, or diminished excitability.

"It must be borne in mind that action, the power to act, and the susceptibility to the influence of excitant agents, which is here denominated excitability, are different conditions or qualities of the system, and may each be reduced without a necessary reduction of the others. A morbid diminution of action is *depression*, a similar diminution of power is *debility*, and the term *diminished excitability* explains itself.

"These conditions may and often do co-exist; but a few remarks will show that they are distinct, and may exist separately. Thus, depression or diminished action may result from a temporary abstraction of some wonted stimulus, or the direct restraining influence of some depressing agent, and yet the real power and excitability may be unimpaired. You may restrain a strong horse with cords, but you do not therefore necessarily lessen his strength. Loosen the cords, and it will be found that all his energy remains. Thus, remove from the system, or a part of the system, the depressing agency, and, if it has not been long applied, the unimpaired strength will be evinced by action at least as energetic as that of health. The excitability, so far from being necessarily diminished, is often increased by causes producing temporary depression; as is proved by the reaction which immediately follows the withdrawal of the depressing cause, and which is ascribable only to an augmented susceptibility, by which the ordinary healthy excitants produce more than their usual effect.

"That power may be diminished, without a diminution of excitability, or of action, is no less true. It is notorious, that a debilitated system is often thrown into tumultuous disorder by causes which would produce no such effect in health. Thus, in an individual much reduced by an impoverished diet, or by depletion, how often do we observe a panting respiration, and an almost convulsive action of the heart, under a degree of bodily exertion which would have scarcely discomposed these functions, in the ordinary state of the system! How often, under similar circumstances, do the slightest causes produce great nervous disturbance, amounting in the female to violent hysteria! These results can be accounted for only by admitting an increased exitability, which enables the same amount of excitant influence to produce a greater amount of effect.

"Again, diminished excitability may exist without essentially involving the existence of debility or depression. When a debilitated, but unduly excitable heart, is strengthened by suitable measures, it loses its excess of excitability as it acquires vigor; yet, by an increased application of stimulant means, it may be made to act as tumultuously as it did in its more excitable state, under a less amount of stimulation. Here then is diminished excitability, with increase of strength, and without diminution of action.

"It follows from what has been sid, that the degree of depression is by no means a certain measure of diminished strength or excitability. Yet this is often overlooked in practice, and patients with undiminished powers of system, and with perhaps an increased fund of excitability, are, in consequence of some temporary depression of the actions of health, treated with stimulant measures, to their very great detriment; and conversely, persons greatly debilitated, but with excessive action of some important organ, dependent upon increased excitability, are no less injuriously depleted with a view to the reduction of the excitement. There is no distinction more important to the young practitioner than that which I have here attempted to draw."—(Vol. i, p. 60.)

Irritation leads to inflammation, which is also considered as a state of unhealthy excitement. Dr. Wood, in one of the longest articles in this part of the work, has given a rapid but very good sketch of the progress, phenomena, effects, etc., of the inflammatory process: but he does not tell us with precision, or anything approaching to it, where he considers irritation to end and inflammation to begin.

Congestion is merely a concomitant of one of the three states mentioned, and receives a separate consideration only because of its frequent occurrence and the importance attached to it by modern pathologists. The author does not fail to insist upon the necessity of looking beyond the congestion to the cause producing it.

Fever is an important constituent of many diseases, and though not elementary may be classed among the simpler forms, as it is incapable of analysis. Our author believes in the existence of idiopathic and symptomatic fevers, but at the same time asserts that the febrile movement in the two cases

is essentially the same—an assertion which some pathologists deny. The general view given in the essay is well worth the reader's attention. We make an extract from the conclusion, to show in some degree the difficulties hanging over the subject, and the fairness and candor with which the author meets them.

"Admitting fevers to be in some instances idiopathic, in others symptomatic, the proper febrile movement, from whatever cause it may proceed, and however it may be complicated in different cases, is of the same essential character. The functions are deranged, and in such a manner that all recognize the disorder when they encounter it. There must, therefore, be something, in the different febrile diseases, common to the whole of them, and to this the name of fever properly belongs.

"It is an interesting question what is the nature of the derangements in the functions. The mere statement that they are universally disordered gives no definite notion of the disease. But it is by no means an easy task to explain the nature of the derangement. Some of the functions are in a state of irritation, some probably of depression; but if we attempt to review the whole of them, and point out which are in the one state, and which in the other, we find that in many instances the syptoms do not afford us grounds for a positive decision; and we can derive no aid from organic changes; for these, when they do occur, are not essential. The order in which those states succeed each other, and the chain of mutual dependence which connects them, equally elude our search. It is possible that there may be something peculiar in the irritation and depression. But if such peculiarity exist, we cannot point out its nature. Together with disorder of the solids, there is very frequently an altered state of the blood; but the question has not yet been settled, whether this is an essential part of the disease, and important in the chain of causation, or a mere incidental effect. We are thus in a condition of uncertainty upon almost all points.

"Theorists have failed in endeavoring to trace the complicated disorders of fever to some common source, and to point out a particular succession, a particular and necessary line of march, in the progress of the affection. The universal disturbance of function which constitutes the disease may be brought about in various ways; and the starting point may be

entirely different in diferen cases. Yet, among the great majority of cases, there is a close analogy in the mode of onset, which must be ascribed to some common principle. Whether the fever is idiopathic or symptomatic, the first decided step towards its formation, seems to be some morbid impression upon the nervous system, and this impression seems to be of a depressing nature. The phenomena immediately preceding, and those attendant on the chill, are for the most part unequivocally those of depression. The whole nervous system appears to have received a shock from the cause, cramping, and for a time deadening its energies. Something analogous to this we have in the effects of a severe surgical operation, of a severe injury in any part of the body, and of sudden alarming or afflictive intelligence. Along with the diminished exercise of the nervous function, is necessarily a diminution of all those functions dependent upon it. We may thus partially explain the condition of the chill; but there is something more which we do not fathom; something in which the chill of fever differs from other instances of nervous depression. Upon principles which have already been explained, the general prostration is succeeded by reaction, and the fever is then established. But there is here also something more than mere reaction. There is the continued action of the cause, a diversified play of sympathies in one case, a widely pervading influence from some unknown agent in another; and fever is not purely, as some have maintained, the *resilience* of the bowed down system. A proof of this is, that the febrile excitement is by no means proportionate, in all cases, to the initial nervous depression. To unraval this complicated web is in the present state of our knowledge impossible. We are too little acquainted with the precise reciprocal action of the organs, with the nature of the nervous power by which this reciprocal action is maintained, and, in many instances, with the cause of the disease and its mode of operation, to enable us to advance far beyond conjecture. We know that the heart, arteries, and capillaries are in a state of super-excitement; that, under the combined influence of the nerves and bloodvessels, calorification is increased; that all the secreting surfaces, including that of the stomach, and all the secreting glands, and the whole process of nutrition, are deranged; sometimes probably being irritated, sometimes depressed, and sometimes peculiarly affected, under the influence of peculiar causes.

"But in many instances of fever, even the imperfect concatenation above described is not evinced. Not unfrequently, the

stage of chill is so slight as to preclude any idea of its agency in inducing the succeeding stage, and sometimes it is entirely wanting. In these cases, we must suppose the various derangements constituting the fever to be induced by the exciting cause, without a preliminary action specially upon the nervous system. Either the cause enters the circulation, and reaches all the organs so as to act on all simultaneously, or it affects some one part primarily, from which an influence is conveyed sympathetically over the system."—Vol. i, pp. 104, –6.

Article sixth treats of *peculiar morbid products*, such as tubercle, melanosis, scirrhus, encephaloid, etc., and pleases us less than any article we have yet noticed. Parasitic animals are also treated of in this section. In speaking of these, Dr. Wood does not favor the theory of spontaneous or equivocal generation, but thinks that they are derived from germs or ova of preceding animals of the same species. Such is nature's general law, and, until it can be shown to be insufficient or inapplicable, correct philosophy requires all uncertain cases to be referred to it. In the present instance no such inapplicability exists, as all the difficulties are easily explained.

"Supposing the entozoa to have the same origin as other living beings in general, their germs must be derived from one of two sources; either they must have been received from the parent, and thus pre-existed in the body from birth, waiting for circumstances favorable to their development, or they must have been derived from without. In favor of the former notion, is the fact that each species is confined, as a general rule, to a particular animal, like a plant to certain districts of country. But the explanation of this fact simply is, that the germ finds only in the particular animal in which it flourishes the condition of things favorable to its vital activity. A strong argument against the opinion, is the difficulty of supposing that the ovum or germ should have so long remained concealed in the same individual and his predecessors, possibly for many generations, without undergoing development. The probabilities are greatly in favor of its external origin. It is said that the parasitic animals of the human frame have no prototype in nature. This is true of most of them, so far as

observation has extended. But, in the first place, the fact that no such prototypes have been discovered is no proof of their non-existence; and, secondly, animals of the same species as the parasite may be constantly before us in the outer world, but with characters so different that they cannot be recognized. It is highly probable that living beings, developed from ova in the human body, would be so modified by the peculiar circumstances of their position as to lose specific characteristics, which naturalists ordinarily deem essential. The eyeless fish of the Mammoth Cave of Kentucky are said by persons quite competent to decide, to be identical with those in the ordinary streams of the country. If an animal can thus, in its development from the ovum, lose an eye where it is not wanted, it may well lose other less important characters of mere form. It may well be, therefore, that of the innumerable germs which fill the external world, some may find admittance into our frames, and there expand into beings, apparently different from anything around us. But it has been objected further, that not only are these parasites found in parts of the frame having an external communication, but also in closed cavities, in the interior of parenchymatous organs, and even in the fœtus. In reply, it may be said, that wherever a blood corpuscle can circulate, there also may pass a living ovum; for the corpuscle, or at least a cell not larger than it, has within it the powers requisite for organization. Microscopic germs may enter our systems through the lungs or stomach, and circulate everywhere with the blood, and even pass along with nutriment into the fœtus, though much larger in proportion to the resulting animals than an acorn to the oak. A positive argument in favor of the opinion here advocated, is the occurrence of certain entozoa only in certain regions of country. Thus the guinea worm is known only in certain parts of the East, and of the two species of tapeworm, one is confined chiefly to certain parts of Europe, where the other is camparatively little known."—(Vol. i, p. 122.)

The chapter on general etiology, occupying thirty-five pages, contains valuable matter, but we must hurry over it with this general commendation. The next chapter, on symptomatology or semeiology, comprises a fund of information especialy valuable to our younger readers. These will excuse the length of the quotation we are about to make in reference to

the symptoms presented by the tongue. We recollect the great difficulty that we used to have in forming any clear notions of the indications presented by this organ; and we take it for granted that most physicians have in the outset experienced similar difficulty.

"In drawing inferences from the condition of this organ, it is important to know, whether the appearances it may present are the result of local disease in the mouth, or of the sympathies which connect it with other parts of the system. In general, there is little difficulty in coming to a correct conclusion upon this point; and it is only necessary that the attention should be directed towards it. The following remarks have reference only to the general indications offered by the tongue. This organ seems to have been designed as an index, to the eye as well as to the ear, of the state of the system; so numerous and diversified are the morbid affections which modify its healthy appearance. It not only participates in all general derangements of the whole system, serving as one of the surest guides to a correct judgment in relation to the degree, progress, and precise stage of the disease; but especially also sympathiszes with the different parts of the digestive tube, at one extremity of which it is placed.

"The *bulk* of the tongue may be increased or diminished. Its enlargement, when not so considerable as to be very obvious, may often be known by the appearance of indentations on its sides, made by the pressure of the teeth. This is occasionally one of the first signs of the mercurial influence. Its contraction, when not the mere effect of dryness, is usually the result of a diminished supply of blood, and indicates either a general deficiency of the circulating fluid, or great feebleness of the heart's action. Like every other part naturally moist, it shrinks by drying; and, under such circumstances, no general inference can be deduced from its mere loss of volume.

"Its *color* is often greatly and significantly modified. Morbid floridness of the tongue is the consequence either of the condition of the blood, or of its greater abundance in the organ In the former case, an unduly arterialized state of the mass of the blood is indicated; in the latter, either over-excitement of the circulation or generally, phlogosis of the stomach. Redness of the tongue, not the result of local causes exclusively, has been supposed by some pathologists to be

an almost certain sign of gastric inflammation or irritation. But this is far from being the case. It is often seen when no evidence of gastritis is presented, either by the symptoms or upon dissection, and is not unfrequently absent when that disease exists. Serious practical injury may result from this error. The red tongue can be considered as having special reference to the stomach, only when other symptoms point in the same direction, and even then, is by no means a certain sign. A *livid* or *purple* color of the tongue is usually dependent upon an insufficient aëration of the blood, and is a valuable sign, in connexion with the same color of the lips. Not unfrequently the tongue is morbidly *pale;* and this state is a sign of deficiency of the blood in general, or of its red corpuscles in particular, or of great prostration of the circulating forces.

"Its condition as to *dryness* and *moisture*, is often highly significant. But caution is necessary not to mistake dryness from temporary and unimportant causes, for that which results from general disease. In persons who sleep habitually with their mouths open, the tongue is apt to be dry in the morning; and the same cause often produces the same effect in sickness. On visiting a patient, we find the tongue unexpectedly dry, and begin to feel some apprehension, until we learn that the patient has been breathing for sometime through the mouth alone. A stoppage of the nostrils often gives rise to this phenomenon. In all doubtful cases, it is only necessary to request the patient to close his mouth, and then move the tonge about so as to moisten it. If he succeed satifactorily, we may conclude that the dryness was accidental, and of no account. Another caution is requisite; to take care, namely, that a really dry tongue should not be mistaken for a moist one, in consequence of the patient having recently taken a liquid into his mouth. Dryness may exist in different degrees, from mere clamminess to perfect aridity. It depends on a deficiency of saliva, or of mucus, or both, and indicates a general tendency to diminished secretion. It not unfrequently occurs, as a sympathetic affection, in ulcerative inflammation of the small intestine. It affords sometimes the most important therapeutical indications, as will be fully shown hereafter.

"The *temperature* of the tongue serves as a guide to that of the body generaly. When cold, it evinces for the most part, great prostration of the powers of life. It proves that the process of calorification is failing at the very fountain; for the breeth must be cool, before the tongue can become so in any considerable degree. This coldness of the tongue has been

frequently noticed in severe cases of epidemic cholera. But we must take care not to confound coldness from local causes, as from ice in the mouth, or from the patient having slept long with the mouth open in a cold atmosphere. with that proceeding from the state of the system. Heat of the tongue, except when arising from inflammation of the organ, may be considered as a sign of a general elevation of temperature.

"But the condition usually denominated a *furred tongue*, is perhaps the most valuable diagnostic symptom afforded by that very important little member. In this state, the tongue is covered with a morbid coating, which adheres so firmly that it cannot be removed, without removing a portion of the surface along with it. Occassionally, deposits take place from the saliva; but these are easily removable, and must be distinguished from the genuine fur. The latter proceeds from a secretory process of the tongue itself, and seems to be incorporated with the superficial layer of its mucus coat. It is almost always confined to the upper surface, where the structure of the membrane is papillary. Though very generally a sign of disease, it is not always so. Some persons have a furred tongue habitually, more especially upon rising in the morning; and, though in the greater number of these, there is probably some chronic disorder of digestion, yet in others the health appears to be perfect.

"A furred tongue almost always accompanies fever, and is one of the most decided characteristics of that affection. Indeed, when considerable in degree, and not dependent upon stomatitis of any kind, it may very generally be regarded as a febrile symptom. When the fur is *white*, *thickish*, *tolerably uniform*, and accompanied with moisture, it usually indicates an open, active state of fever, in which, though the obvious symptoms may possibly be violent, there is not apt to be any lurking mischief, nor any malignant tendency. When *short*, very *adhesive*, and *rather scanty*, permitting the redness of the tongue to appear through it, and attended with some disposition to dryness, it is often a sign of a protracted and obstinate form of fever, which is apt to assume a low, nervous, or typhoid form. *A yellowish hue* of the fur is usually indicative of bilious disorder, being produced either by the vomiting of bile, or, what is probably much more frequent, by direct secretion from the tongue, consequent upon deficient secretion by the liver, or an excessive production of bilious matter in the blood. Not unfrequently, this color of the tongue is accompanied with a bitter taste. It is common in miasmatic fevers, and hepatic diseases. *A brown or black tongue*, is usually indicative of a

low state of the system, and an impaired condition of the blood. It is owing to the secretion of a dark matter, apparently identical with that which collects about the teeth and lips in typhus fevers; and probably consisting of blood modified in its passage out of the vessels. The same action would seem to take place in the tongue, as that which, in the stomach and bowels, occasions the black discharges so common in malignant fevers. It may depend on an enfeebled state of the secreting tissue, or a diseased state of the blood, or on both united. Very frequently, this darkness of the tongue supervenes upon a previously white coating, and indicates a deteriorated state of the vital forces, and probably of the blood. The caution should be observed not to confound this discoloration with that which may proceed from accidental causes, as from the chewing of liquorice, tobacco, burnt coffee grains, &c. In many instances, the white fur of the tongue is modified by *red points*, which are the tops of the swollen and projecting papillæ. This appearance is not uncommon in eruptive febrile diseases, especially scarlet fever and measles. When consequent upon a dyspeptic state of the stomach, the fur is most copious in the morning before breakfast. In some persons, emptiness of the stomach is said always to induce this state of the tongue.

"The manner in which a furred tongue becomes clean affords valuable indications. When the fur slowly recedes from the tip and edges, thinning gradually as it retires, it intimates a favorable convalescence. A portion of fur often lingers near the root of the tongue, long after the disease has given way. In another mode of cleaning, the fur loosens and separates in flakes, often beginning at the middle or near the root, sometimes in large patches, or over almost the whole tongue at once, leaving a smooth, red, glossy surface, as though the papillary structure had been lost. In such cases, if acute, and if the tongue remains moist, convalescence almost always takes place, though usually tedious, and sometimes very lingering. In threatening fevers, it is very desirable to witness this phenomenon; and, as it is often preceded by a feeling of soreness in the fauces, this may be considered, when it occurs in such cases, as an auspicious circumstance. Much stress was laid upon this as a prognostic symptom by the late Dr. Joseph Parrish, of Philadelphia. Sometimes the fur recurs once, and again, before it ultimately disappears; and weeks and even months are occasionally consumed, in the struggling and apparently uncertain advance of the system towards health. In less favorable cases, the tongue, after having commenced the process of cleaning, as just described, or even

after completing it, instead of continuing moist, becomes as dry as a chip, with an aggravation of all the symptoms, and no little increase of danger. The indication is still more unfavorable, when, in addition to its dryness, the surface becomes gashed, chapped, or fissured, or exhibits a rough, scaly appearance.

"This smooth, red, and glossy state of the tongue, sometimes with moisture, and sometimes with dryness, is not uncommon in chronic diseases, in which it is generally a bad sign, and is supposed to indicate serious organic derangement of the alimentary mucous membrane. A still worse condition, however, is an aphthous state of the tongue, which is apt to come on in the advanced stages of chronic diseases, and is generally to be received, under these circumstances, as a fatal sign, though of itself, and occurring in ordinary health, it is in no degree alarming.

"A *loss* or *depravation* of *taste* is not uncommon, and is generally of little consequence, depending upon a mere derangement of the surface which receives the gustatory impressions. But, when of a paralytic nature, it is much more serious, as it generally indicates disease within the encephalon.

"The only other point requiring consideration refers to the *movements* of the tongue. When, in acute febrile diseases, these are not under the control of the patient; when, upon being requested to protrude the tongue, he is unable to do so; or when the organ trembles much in the attempt, the symptom is exceedingly unfavorable, indicating either very great general prostration, or dangerous cerebral disease. Of similar unfavorable prognostication, under the same circumstances, is the occurrence of a difficult and hesitating utterance, like stammering. The inclination of the tongue towards one side, when protruded, usually indicates palsy, and is one of the common attendants upon hemiplegia."—(Vol. i, pp. 162–6).

Passing over the chapter on general therapeutics, we come to the second part of the treatise, viz: special pathology and therapeutics. Here the author arranges diseases into three great classes: the first includes general diseases, which affect all the functions at the same time; the second, constitutional diseases, which may display themselves locally, but not every where at the same time; and the third, diseases affecting some particular organ or structure, and where the general affection, if any is present, is strictly secondary.

In the first class are placed the idiopathic or essential fevers—diseases having in common a febrile movement. Symptomatic fevers belong to the third class, the fever being secondary to the local affection. The idiopathic fevers are divided by the author according to the cause—thus:

1, Irritative fever; 2, miasmatic, or bilious fever; 3, yellow fever; 4, enteric or typhoid fever; 5, typhus fever; 6, plague; 7, small-pox, or variola; 8, vaccine disease, or vaccina; 9, chicken-pox, or varicella; 10, measles, or rubeola; 11, scarlet fever, or scarlatina; 12, erysipelas.

Under the term irritative fever, are included all cases of idiopathic fever resulting from causes of irritation which have nothing peculiar or specific in their mode of action, but which produce an over-excitement in one or more functions of the body. This over-excitement being propagated to different parts of the system, may throw all the functions into a state of derangement capable of sustaining itself after the cause is removed. There must be, of course, a pre-existing disposition in the system to the febrile movement, in order that it should be thus independently sustained. The degree of febrile reaction varies greatly—ranging from the mildest to the most violent. Generally the symptoms are "a hot dry skin, frequent pulse, quickened breathing, furred tongue, headache, loss of appetite, thirst, constipation of the bowels, scanty urine and diminution of the secretions generally." The pulse is sometimes remarkably frequent, but at the same time is apt to be reduced in strength and force. Sometimes there is slight inflammation of the fauces, or of the alimentary or pulmonary mucous membrane, but not to an extent sufficient to account for the fever.

The fever may be ephemeral, or may continue two, three, or four days, or even longer. The duration cannot be previously calculated, but under proper treatment is seldom greater than five days. When prolonged beyond this the fever is apt to assume the remittent form, and to be found associated with inflammation of some part. The disease frequently occurs in children, and owing to their greater impressibility is more per-

sistent in them than in adults. The infantile remittent of authors, when not confounded with inflammation of the alimentary canal, the mesenteric glands, the liver, or with tubercular disease of the lungs and bowels, is an example of irritative fever. It is identical with worm fever. Childhood gives nothing peculiar to the nature of the disease. It may be ephemeral at this period of life as at any other; but when persistent it exhibits more or less of the following character.

"Children from two to eight years old are most subject to the complaint. Sometimes the fever approaches gradually, sometimes occurs quite abrubtly in the midst of apparently excellent health. Indeed, the child is not unfrequently attacked after some unusual indulgence of his appetite. It is seldom that any other symptom of a chill is observed than some remaining coldness of the extremities, after the surface generally has become hot. This is perhaps owing to the circumstance, that the disease is not usually noticed until the fever has become established. When first visited, the child has a hot skin, a frequent pulse, sometimes amounting to 140 or even 160 in a minute, a furred and dryish tongue, quickened breathing, thirst, aversion for food, sometimes nausea and vomiting, and generally constipation of the bowels. There is also obvious disorder of the nervous system. If able to express himself, the child often complains of pain in the head; but otherwise, is restless and fretful, or, if quiet, is heavy and disposed to sleep. Starting in sleep, and twitchings of the tendons are very frequent, and sometimes the onset of the fever is accompanied with convulsions. After a few hours, the violence of the symptoms abates; and, on the following morning, the child is found with a cooler skin, a less frequent pulse, a moister mouth, less nervous disturbance, and a brighter and more lively expression. As the day advances, the fever again rises with similar symptoms as at first, and thus the disease continues, with daily remissions and and exacerbations, till its close. In some cases, however, the remission is much less decided than in others; and occasionally it might be difficult to determine at what period in the twenty-four hours the febrile symptoms were most violent. Throughout the complaint, the tendency to constipation generally continues; and the passages, when procured, are apt to have an unhealthy appearance and odour, being clay-colored, black, or greenish, with undigested food often intermingled, and very offensive.

Sometimes there are large fecal accumulations in the bowels. The urine is scanty, and sometimes almost or quite suppressed. The breath is often sour, and of a peculiar heavy odour, characteristic of febrile disease in children. Delirium is not unfrequent; but still more frequently there is drowsiness, amounting sometimes even to stupor or coma, which is usually most striking during the exacerbations. Occasionally, the child picks its nostrils and lips, so as to make them bleed; and in the advanced stages picks also at his clothing, or the bedclothes, or at whatever other object is near him, even at imaginary objects in the air; but this phenomenon is not confined to this form of fever, nor to childen, though a much less dangerous sign in them than in adults.

"The disease runs on variously from five to ten days, or even two weeks; but, in the protracted cases, there is always reason to apprehend the existence of positive inflammation, generally within the abdomen, to which the complaint owes its continuance and danger. Unless in consequence of the supervention of inflammation, which places the disease among the phlegmasiæ, it almost always ends in recovery. The paroxysms generally become shorter and milder; purgative medicines operate more readily, and bring away more healthy discharges; the urine becomes more copious; the heat of skin and frequency of pulse abate; the tongue begins to clean, and the appetite to return; and health is gradually re-established.

"It is not always easy to distinguish the true infantile remittent from the phlegmasiæ of the bowels. The occurrence of diarrhœa or of dysenteric stools, with a tumid abdomen and persistent tenderness upon pressure in certain parts, and less decided remissions in the fever, are the most prominent diagnostic symptoms of the latter affections. Some authors have attempted to distinguish between this and the worm fever. I believe that they are identical; worms being capable of exciting the fever in those predisposed to it, as well as any other irritant. The diagnosis between the infantile remittent and enteric or typhoid fever, will be better understood when the latter complaint has been studied. It will be sufficient to state, in this place, that, in the enteric fever, so far from a disposition to constipation, there is usually either diarrhœa, or a great facility of being acted on by cathartics, so that the least doses will often operate. There is, besides, more meteorism of the abdomen, a more regular march of the fever, and altogether a severer grade of disease than in the infantile remittent. The drowsiness or stupor which often attends the latter complaint, may sometimes lead to the suspicion of ce-

rebral disease; but the absence of violent screams and uncontrollable vomiting, in the earlier stages, and the ordinary circumstances that the stupor increases and diminishes with the fever, that the patient can be roused without much difficulty, and that there is no great derangement of the pupil, no strabismus, nor paralysis, will generally prove sufficiently diagnostic."—(Vol. i, p 225.)

The causes are of course numerous; but the most frequent one is exposure to cold. Over-exertion in hot weather or exposure to intense heat, teething, worms, errors in diet, may be mentioned among the frequent causes.

In the adult, an efficient cathartic, refrigerant diaphoretics, and attention to regimen, generally suffice in the way of treatment. A Dover's powder at night is valuable when much general soreness exists; and a purgative containing calomel will be required, when there are evidences of hepatic derangement.

In the *infantile* cases, the author thinks that the most effectual remedy, in the early stage, is a full purgative dose of calomel.

"This cathartic appears to exercise a peculiar influence over the disease. It is certainly more efficient than other medicines belonging to the same class, which operate on the bowels no less powerfully. I have often seen the disease yield immediately to a full dose of calomel, after having been ineffectually treated with magnesia, castor oil, salts, &c. For nearly thirty years, I have habitually used this medicine in the irritative fever of children, have never seen it do harm, and have very frequently found it to put an immediate end to the disease. I believe that, if given early, it will generally produce this effect, and thus prevent the protraction of the fever in the remittent form. How it operates, is a matter of conjecture. Perhaps it may do good by its powerful influence upon the liver, promoting a free secretion of bile, and unloading the portal circulation. Perhaps it may have a peculiar alterative effect. But the fact of its utility rests not upon theory, but experience. In order to avoid the sore mouth which, in some fever cases of children, it is liable to produce when long retained in the bowels, care should always be taken to administer some other cathartic, if it fail to operate

freely in six or eight hours. From two to six grains of calomel, according to the age of the patient, three or four grains being the proper dose for a child during the third and fourth year, may be given in syrup or molasses, and followed, if necessary, in the time above mentioned, by a dose of castor oil or sulphate of magnesia. Should the bowels not be well evacuated in this way, the operation of the cathartic should be promoted by enemata. In cases of obstinate constipation, moderate doses of infusion of senna, with manna, fennel seed, and sulphate of magnesia, repeated at intervals of two hours, will be found very effectual. After the bowels have been freely opened, should the fever continue, it may be treated with the neutral mixture, repeated every hour or two, in the dose of one or two fluidrachms, or, if the stomach be irritable, by a dose of the effervescing draught at the same interval. Along with the neutral mixture, when there is no sickness of stomach, small doses of antimonial wine, or of tartar emetic in aqueous solution, may be used, the quantity being so regulated as not to induce vomiting or severe nausea. The spirit of nitric ether is also an admirable adjuvant, in those cases in which there is much starting or twitching of the tendons. The warm bath is useful under similar circumstances. This treatment is especially applicable in the febrile paroxysm, but it may also be employed, with smaller doses, or longer intervals between them, during the remission.

"Should convulsions have occurred or be threatened, in addition to the sweet spirit of nitre and the warm bath, as above recommended, poultices made with bruised garlic and flaxseed meal or bread and milk, should be applied around the feet, and the back should be bathed, along the spine, with brandy heated with garlic. It may sometimes be proper to take blood from the arm, or by leeches from the temples, and to make cold applications to the head; but these are by no means necessary in all cases. The practitioner must be influenced by the degree of arterial action, and the evidences of sanguineous determination to the head. Convulsions in children are often the result of mere nervous disturbance, and do not require the lancet. When, however, they continue beyond a few minutes, or show a disposition to return, especially if there be no reason to suspect spasm in the intestines, it will be safest to take blood.

"Throughout the disease, the bowels should be kept daily opened. Magnesia, alone, or combined with one of the saline cathartics, as sulphate of magnesia, tartrate of potassa and soda, or phosphate of soda, will often be useful, not only as a

laxative, but also as an antacid. Should the patient be feeble, it may be given with rhubarb. Sometimes it may be proper to repeat the calomel, though in smaller doses than at first. It would be especially indicated by whiteness or blackness of the stools. Under the same circumstances, if the alimentary canal should be delicate, blue mass may be snbstituted for the calomel.

"When the breath is sour, small doses of bicarbonate of soda or bicarbonate of potassa should be given, from four to six times a day, dissolved in water or carbonic acid water. The latter salt should be preferred, when the urine is scanty, in consequence of the diuretic properties of the saline compounds of potassa.

"Should the abdomen be painful or tender, it should be covered with an emollient cataplasm; and sometimes leeches and blistering may be necessary. In cases accompanied with vomiting, teaspoonful doses of lime-water and milk, mixed in equal quantities, and given every hour, are often very serviceable. In the same cases, aromatic poultices, or weak sinapisms should be applied over the stomach; and it may become necessary to employ an anodyne enema."—(Vol. i, pp. 227–8.)

Under the term *miasmatic fever*, Dr. Wood includes intermittent, remittent, and congestive, or, as he prefers to call it, pernicious fever. These are different forms or types of disease, produced by a common cause—miasm. We find nothing with which the reader is unacquainted in the section on intermittent fever. Dr. Wood prefers small doses of the quinine, repeated every hour or two hours, (omitting the time for sleep.) as the medicine is thus more easily absorbed, and less liable to irritate the stomach. But in the quotidian when the apyrexia is short, this method cannot be followed—the doses must be larger. We presume that few of our readers employ bleeding in the cold stage. Nevertheless they may like to hear what the author says of it.

"It has always appeared to me to be opposed to a sound pathology. The congestion of the cold stage is the result of a depressed condition of the nervous system, in which the heart and pulmonary capillaries participate. The blood, imperfectly transmitted through the vessels of the lungs, and imperfectly forwarded by the heart, accumulates necessarily in the ve-

nous system behind these points of obstruction. It is not the accumulation of blood that produces the prostration, but this that causes the accumulation. How then can the abstraction of blood lessen the difficulty? If the heart and lungs acted feebly because they were overloaded, then the removal of a part of the burthen might be useful; but the fact is, I believe, that they are overloaded because they act feebly. How then can the asserted effects of bleeding in the cold stage be accounted for? Partly, I believe, by the influence upon the imagination of the patient. I have no doubt that the mere tying of his arm, as in the application of the tourniquet, would have in a considerable degree the same effect. The loss of an ounce or two of blood is said sometimes to have produced a complete solution of the paroxysm. Is it possible to conceive, that the heart and lungs, and all the interior viscera, should have been overwhelmed by having in them one or two ounces of blood beyond their proper capacity; and is it not probable, that the solution would have equally taken place, if, with the same amount of preparation, and an equal belief on the part of the patient that everything was going on favorably, no blood whatever had flowed? Besides, a chill very often changes spontaneously, within the time that is occupied in the preliminaries and the operation of venesection. May it not be, that in many of the reported cases, the same result might have happened without the bleeding? I do not, however, assert, that the modified state of the impression of the blood upon the nervous tissue, consequent upon the loss of a portion of the impressing agent, may not sometimes hasten reaction when there is a strong disposition towards it; just as the impression of sudden cold upon the surface, already chilled, will sometimes have the same effect. But, even allowing this to be the case, there are other means of obtaining the result when desirable, which are not liable to the same objections. The loss of blood, when not necessary, should always be avoided, on account of its debilitating effects. Unless under peculiar circumstances, which have already been noticed, it is never indispensable in intermittents. There are cases in which it might reduce a prostration, but just within the control of remedies, below the point of reaction. Why then resort to it?—(Vol. i, pp. 243–4.)

The second affection in this class is *remittent fever*, or the *autumnal*, *bilious*, *bilious remittent*, &c., of authors.

Dr. Wood prefers the term *miasmatic remittent;* he classes

with it *continued fever*, in so far as the latter is distinguished from typhoid fever. As sometimes the type is so doubtful that there is difficulty in distinguishing the miasmatic remittent from the intermittent; so sometimes the fever pursues a uniform course, with slight or scarcely perceptible relaxation, from the beginning to the end. Concerning the grade of fever, the author remarks:

There are two distinct modes in which we may estimate the grade of the fever; first, in reference to its greater or less violence, and, secondly, in reference to the greater or less energy of system which attends it. In both respects, bilious fever varies greatly. As regards the violence of the disease, it may be of all conceivable grades, from a mildness which scarcely confines the patient, or requires the interposition of remedies, to a severity which demands the promptest treatment to preserve life, and against which all the resources of nature and art occasionally fail. The degree too of the energy of system may be very different, and may give rise to marked varieties of the disease. The state of system may be sthenic, with the blood rich and abundant, and all the vital functions full of vigor; or it may be feble, asthenic, or adynamic, with the vital forces exhausted by previous disease, intemperance or other debilitating cause. In these two conditions, the resulting febrile action partakes of the character of the vital functions; being in the former generally open, well developed, energetic, or, to use an epithet very commonly employed by writers, inflammatory; in the latter, often feeble with deficient reaction, and a tendency to prostration, and, when the blood is at the same time depraved, with the addition of symptoms usually denominated typhous. The term inflammatory, as above used, is not entirely correct; for it is not intended to imply the existence of any positive inflammation. It only means, that there is real strength or energy as well as excitement in the vital functions. Nay, inflammation is not at all incompatible with the contrary state; for we often observe it in cases of the asthenic, adynamic, or typhus form of the disease. It is necessary constantly to bear this distinction in mind, in the treatment of bilious fever; remedies being well borne and even required in the one case, which might prove in the highest degree dangerous in the other. In very many cases, it happens that the strength of system is in an intermediate state, being neither materially elevated above,

nor prostrated below, the medium standard of health. The symptoms detailed immediately below are those of cases in which the vital powers are not materially depressed.—(Vol. i, p. 256.)

The whole chapter on this fever is a very excellent one, and evidently written with care. The description of the ordinary forms of the disease, and of some of the many varieties, appear to us to be admirably drawn. We pass over all this, however, to dwell shortly on the treatment.

If the attack has come on soon after a full meal, or if there is much gastric oppression, with nausea, and ineffectual efforts to vomit, with now and then eructations of sour or sharp fluids, an emetic of the milder sort is necessary. An active cathartic is always indicated, and both theory and experience point to calomel. The bowels should afterwards be kept open by the milder cathartics. Another remedy of great importance is bleeding, but it must not be resorted to indiscriminately. It will not eradicate the fever; and the great benefit to be derived from it is in preventing or removing inflammation and local determination, but even here it must be practiced always with reference to the general energy to support the system after the blood has been lost. The indications for blood-letting are not always presented in the very onset of the disease. Inflammation or the local determinations, frequently, perhaps generally, do not appear until two or three days have elapsed. One full bleeding is generally sufficient.

"There are two conditions, sometimes occurring in remittent fever, which demand the loss of blood, though this may at first sight appear to be contraindicated. One of these is the complication of acute gastritis with excessive nausea, which, by repressing the force of the pulse, and producing coolness and relaxation of the surface, suggests the idea of great prostration, when in fact the vital energies are unimpaired, and the apparent depression is the effect of excessive irritation of one of the vital organs. It is highly important, under such circumstances, to be able to detect the real state of the disease through the mask of debility. If such a condition occur early in the case, if, upon the occasional subsidence

of the nausea, the pulse resumes its force, and the skin its febrile temperature, if burning pain or great tenderness in the epigastrium clearly reveal inflammation of the stomach, and if, finally, the color of the surface do not indicate the existence of depraved blood, and malignant or typhoid debility, it may be taken for granted that bleeding is called for, and there should be no hesitation in resorting to the lancet. Not unfrequently the nausea will be found to diminish, and the pulse to rise as the blood flows. The latter event may be considered as a clear proof that the remedy was indicated. In doubtful cases, it may be proper to bleed cautiously, stopping the orifice after taking a few ounces to ascertain the effect, and, if the pulse be found to flag, and the apparent prostration to increase, then to abandon the measure altogether; but, under opposite circumstances, to resume it, and continue till the requisite quantity has been lost.

"The second condition is associated with inflammation of the brain. Sometimes, in connexion with cerebritis, the general organic actions of the system flag, in consequence of the interference of the disease with the functions of the great nervous centre, which exercises in health a controlling and supporting influence over most of the vital operations. Besides the stupor or coma, which marks the cerebral disease, there is a small, feeble, and irregular pulse, with an uncertain temperature of the surface, which might lead to the inference of debility, were the practitioner not upon his guard. As in the last mentioned case, the stage of the disease, and the general signs which indicate the state of the blood, may lead to the suspicion, that the apparent debility is nothing more than a depression produced by the local inflammatory affection. Here bleeding should be tried with the same caution as in the preceding case, being abandoned if the pulse should flag further, and persevered in, if found to increase the vigor of the circulation.

"In either of the cases above mentioned, it may be proper by sinapisms to the epigastrium or extremities, hot pediluvia, or rubefacient frictions, to call off excitement from the diseased organ, and rouse the circulation, both cardiac and capillary, before resorting to the lancet, or in conjunction with it. Not only may the nature of the case be thus more clearly developed, but the vital actions may be supported under the loss of blood, until time shall be allowed for the oppressed organ to resume its function, after the removal of its load. For the same reason, in those cases of depression dependent on or connected with nausea, opium may be employed to relieve

this condition, preparatory to the use of the lancet."—(Vol. i, p. 273.)

After purgatives and bleeding, Dr. Wood places diaphoretics. In the early stages he recommends the *refrigerant* diaphoretics. When the stomach is not irritable, antimonials, especially the emetic tartar, are advantageous. He does not like the combination of nitre with the antimonials. The effervescing draught, prepared according to the U. S. Dispensatory, is specially recommended by him.

"I feel very confident, that no practitioner who has ever been in the habit of using the effervescing draught, *properly prepared*, in the treatment of bilious fever, will be disposed to abandon it. To the patient it is almost always, when given quite *cold*, agreeable and refreshing, and many call frequently for its repetition. It is one of the most efficacious means of correcting nausea and vomiting, and acts more certainly and powerfully as a diaphoretic than almost any other saline substance with which I am acquainted; tartar emetic itself scarcely constituting an exception. It sometimes occasions griping pains in the stomach and bowels, with frequent small evacuations; but this tendency may be corrected by the addition of four or five drops of *laudanum*, or about twenty drops of the officinal *solution of sulphate of morphia*, to every other dose. Indeed, this addition may often be advantageously made, independently of the effect of the draught alluded to. It tends very happily to compose nervous disturbance, and aids the draught in correcting nausea. Sometimes, it even favors the diaphoretic action.

"When there is high sthenic action and no nausea, a little tartar emetic may be added to the preparation; and in cases of nervous disorder, such as startings, restlessness, wakefulness, and general vague uneasiness, the spirit of nitric ether is an excellent adjuvant, in the quantity of from thirty to sixty drops in each dose."—(Vol. i, p. 274.)

In the advanced stages, or in asthenic cases, and especially in those associated with rheumatism, great advantage will be derived from Dover's powder, in doses of ten grains, repeated every six or eight hours. During the febrile exacerbations, when the patient is not much enfeebled, sponging or ablution with cold water is valuable.

This treatment will suffice for the milder cases, but in the more obstinate, especially if inflammation is present, and bleeding has been pushed as far as is safe, mercury must be resorted to. Dr. Wood has no fear of it when properly administered; on the contrary he advocates it strongly.

It is not necessary to give mercury in all cases of bilious fever. The great majority will do well without it. But, when the disease is violent from the outset, and does not soon show a disposition to yield to the remedies employed, or when it assumes a dangerous aspect in its course, there will always be a propriety in administering it in reference to its constitutional effects. The existence of considerable inflammation, whether in the stomach. brain, lungs, liver or spleen, which cannot be speedily conquered by direct depletion, always affords an indication for its use. In the low or typhus forms of the complaint, when the lancet is inadmissible, it is a most valuable resource. The immense quantities in which it has been sometimes employed are altogether unnecessary. Only a certain amount of the medicine can find access into the system from the alimentary canal, and all the rest is either inert, or only a source of irritation. It is not necessary to interrupt the treatment already detailed. Calomel, or the mercurial pill, may be given in alternation, or conjointly, with the other remedies. The former preparation is best adapted to the early stages of the disease. From half a grain to two grains may be given every hour, two, or three hours, according to the urgency of the symptoms, and the known susceptibility of the patient. Let not those who are accustomed to enormous doses of this medicine, smile at those here mentioned. Let them first try even the smallest dose, in a sufficient number of cases, and determine, from the results of their experience, whether it may not be sufficient. When the stomach is very irritable, doses of only one-sixth of a grain, given every half hour or hour, and regularly persevered in, will often have a more decided constitutional effect than fifty times the quantity. The influence of these small doses, in calming bilious vomiting, is often most delightful. Should the bowels be very irritable, it will generally be advisable to combine the calomel with opium, and especially in the advanced stages. The medicine should be given regularly through the day; but should be omitted during six or eight hours at night, in order that the rest of the patient may be as little disturbed as possi-

ble. It is often proper to administer a somewhat larger than the ordinary dose at bedtime, with a grain or two of opium and the same quantity of ipecacuanha, if these be not contra-indicated, the former by the state of the brain, and the latter by irritation of stomach. The refreshing effects of sleep are thus obtained, and the patient frequently awakens in a fine perspiration in the morning.

"Calomel is very frequently administered in combination with tartar emetic and nitre, in the form of nitrous powders. This is no doubt often an efficient remedy; but all its effects may be obtained more agreeably, and less offensively to the stomach, by the mercurial, alternating with the effervescing draught, as before recommended. When the system obstinately resists the mercurial impression, or the case is very urgent, recourse should be had also to the external use of the remedy, in the form of the mercurial ointment, which may be applied by friction, or to blistered surfaces.

"The effects of mercury upon the gums should be watched for with care; and, as soon as any evidence of its action is afforded, the remedy should either be diminished or suspended, unless in cases of an almost desperate character."

Sulphate of quinine is an all important remedy, but should not be administered when there is high arterial excitement, especially when there is a tendency to cerebral inflammation. The author has seen much harm done by neglect of this caution. He is not an advocate for the large doses given by some.

"But there are circumstances, in bilious remittent fever, which render quinia of the utmost value. When a paroxysm of great virulence has occurred, from which the patient has been saved only by the most strenuous exertions, and there is every reason to fear that a similar one will prove fatal, recourse should be had to the sulphate of quinia, in the remission, however imperfect or short it may be. When the fever has hitherto shown little or no tendency to remit, and the grade ofviolence is such that fatal results appear imminent, should the slightest remission show itself, and the symptoms not be those of cerebal inflammation or strong determination, the quinia should be poured in without stint. The more nearly a case approaches to the above extremes, the stronger is the indication for the use of the antiperiodic medicine. I am

entirely confident that I have seen lives saved by this treatment, which must have been inevitably lost under any other. The quantity of quinia given in the remission, must be sufficient to bring the system under the influence of the medicine, if possible, before the period for the next paroxysm. So far as my observation has gone, from eighteen to twenty-four grains are sufficient, in any case not falling under the title of malignant or pernicious; and often less will answer. The doses must be regulated by the length of the remission. If this be short, they must be very large, and if of a few hours' duration only, the whole quantity must be taken in two or three doses. If the remission be long, the medicine should be equally distributed through it, care being taken that the whole shall have been administered two or three hours before the expected paroxysm. The reader must not be led into the error of supposing, that the dangerous paroxysms above alluded to are characterized by excessive febrile excitement. On the contrary, there is often no remarkable degree of heat of skin, headache, or strength of pulse. The condition is rather marked by an extreme general distress, which the patient finds it impossible to describe, incessant jactitation, a feeling of burning heat while the extremities may be cool to the observer, incessant vomiting, great frequency of pulse, &c. When these subside into a comparative calm, then is the moment for the administration of the quinia.

"Nor should we be content with preventing a single paroxysm. The disease may be of the double tertian type, or may have a tendency to pass from the quotidian into the tertian. The remedy should therefore be continued until two daily paroxysms have been prevented; after which the patient may be considered safe.

"In the more regular paroxysmal forms of remittent fever, should quinia fail, or its use not be deemed advisable, the succession may often be effectually broken by an *emetic*, administered so as to be in full operation at the time of the expected paroxysm. For this purpose, tartar emetic would probably be more effectual than ipecacuanha, though I have seen the latter answer the purpose effectually more than once. A *pair of blisters* upon the legs or arms, applied so as to be in full action at the time above referred to, will often have the same effect. This remedy was very much employed, before the introduction of quinia into use. *Sinapisms* operate in the same way. A full dose of opium, also, given in anticipation of the paroxysm, will occasionally prevent it. When

employed for this purpose, it should be combined with an equal weight of ipecacuanha."—(Vol. i, p. 278.)

When enteric or typhoid symptoms appear, the author advises the mercurial pill in doses of a grain every hour or two through the day until the gums are affected. This may be combined with quinine and other articles according to circumstances. If, notwithstanding the mercurial influence, no amendment takes place, the oil of turpentine will be found efficient, given in doses of ten or twenty drops every two hours. Nitrate of silver may be used under the same circumstances. On the whole the treatment recommended for this stage is similar to that of typhoid fever itself, and we shall refer to it under that head.

The modification of miasmatic fever, commonly termed malignant or congestive, is treated separately under the head of *pernicious* fever. This term is preferred to the former, because it has not been generally applied to other diseases, and is less likely to lead to erroneous views of the nature of the affection.

Pernicious fever is most frequently intermittent, or approximates to that form, and though often quotidian, its most common type is the tertian. The symptoms vary according as the organic or animal functions are most prominently affected. In the former case, evidences of disease will be presented in the organs of digestion, respiration, circulation, calorification and secretion; in the latter, in the brain. Differences also exist according to the organic function on which the morbific cause appears to fall. Thus, its force may be spent more particularly on the heart, the alimentary canal, or the surface of the body in its function of secretion or calorification.

It is important to be able to distinguish this from the ordinary forms of miasmatic fever, and to know whether there are any symptoms in the preliminary paroxysm that prognosticate danger. It should be borne in mind that it may occur in any instance of bilious fever, so that the subsequent yielding of the pernicious symptoms to the remedies employed, or

in the regular course of the disease, shall not be regarded as commencing convalescence, but rather as a preparation for a more vigorous onset. The symptoms indicative of danger in a preliminary paroxysm are thus named by the author:

"An unusual paleness or lividness of the face; an absence of rigors or a sense of chilliness, while the extremities are really cold, and a want of uniform heat after reaction; a disposition to copious or frequent vomiting and purging, with a sense of unusual weight or oppression at the epigastrium; an extraordinary frequency, feebleness, or irregularity of the pulse; much anxiety, restlessness, or tossing about of the limbs, or a disposition to faintness; considerable delirium or drowsiness; a prolongation of the cold stage, and a less degree of febrile excitement than might have been anticipated; and the continuance in the apyrexia of some mental confusion, sleepiness, faintness, or unusual anxiety and uneasiness; any of the above symptoms should be a sufficient warning to the practitioner, not to delay for a moment, the measures requisite for interrupting the paroxysm."—(Vol. i, p. 288.)

Concerning the nature of this fever, Dr. Wood discourses at some length. The pernicious character in his opinion cannot be referred to inflammation; this may co-exist with other phenomena, but in most cases constitutes no portion of the danger. It is not the congestion; for this is present in other diseases without any such results. We must look beyond the congestion.

"It is in the peculiar state of the innervation, that we are to look for the source at once of the symptoms and the danger. This does not consist in a universal prostration of the nervous power. On the contrary, while defective in relation to certain functions, it may be unimpaired in others. Let us apply this view to an explanation of the symptoms. In the first place, in relation to the cases of collapse, in which the organic functions are especially concerned. This is prominently characterized by a want of action in the capillaries and extreme arteries. Some suppose that these vessels are spasmodically contracted. There is no evidence whatever of the existence of such spasm. They collapse simply because they contain no blood, just as they collapse in death. All

parts of the organism receive a certain supply of nervous influence, which is essential to the due performance of their functions. The extreme vessels are probably not less under that influence than other parts. Evidence of this fact is abundantly supplied by phisiology. In the pernicious fever, the innervation of the extreme vessels fails, and they cannot, therefore, perform their part effectively in the circulation. The blood enters them with difficulty, in their enfeebled state, and is carried through them very slowly. Hence the paleness; and hence also the lividness of the surface, owing to the stagnation of the blood. From the same approach to nervous death in these vessels, they allow the watery portions of the blood to ooze through them, almost as through dead membrane. Hence the profuse sweats. The coldness obviously arises from the languid circulation, and deficient change of blood. This condition of the capillaries may co-exist with considerable power in the heart; for the want of innervation is not necessarily equal in the whole circulation. But sometimes, the deficiency is experienced first and specially by the heart. In such cases, syncope or a tendency to it is the prominent symptom.

"The function of respiration sometimes suffers from the same deficiency of innervation. The pulmonary capillaries cease to carry forward the blood with the usual rapidity, and the due aëration does not take place. Hence the feeling of oppression of chest and want of breath, the deep sighing, &c. Some writers ascribe these phenomena to congestion of the lungs. They are the consequence of a want of proper decarbonization or oxidation of the blood, not of mere congestion. In the cases of Maillot, the lungs were found remarkably free from disease after death.

But how account for the oppression of stomach, and the copious vomiting and purging? Upon the same principles exactly. There is no feeling of the stomach, unless it may be excessive spasm, which is more insupportable than that arising from deficient innervation. This can be readily understood by those who have experienced the distressing sensations of a half paralyzed limb. The bloody serum, or pure blood, discharged from the stomach and bowels, escapes through the coats of the vessels, exactly as blood percolates through the tissues after death; with this exception, that, as the vis a tergo still continues in some degree, it adds a vital expelling force to that of mere physical transudation. The alimentary canal may be said to sweat, like the external surface. An appeal may be made to the discoloration, softening, &c., of the mu-

cous membrane, as evidences of inflammation or congestion. I am not disposed to deny the existence of inflammation, in some degree in this membrane. But it is quite insufficient to account for the symptoms. We do not witness the same phenomena in other cases of much more extensive inflammation. Besides, much of the softening of the tissue may be ascribed to depressed vitality, and much of the discoloration to the stagnation of blood, like the livid or purple color of the skin.

"But the thirst and sense of internal heat; are they not signs of congestion or inflammation? By no means. Thirst is a common accompaniment of all conditions of disease in which the capillaries are emptied of their blood, and such is undoubtedly the source of it here. The heat can be referred only to morbid nervous influence. That there is no real increase of temperature within, is inferred from the state of the tongue. Besides, the sensation is not confined to the internal parts. I have known patients to complain, under these circumstances, of distressing heat of surface, when their skin was positively much below the healthy temperature. This is merely another example of morbid innervation. It appears, then, that this defect or derangement of innervation lies at the basis of all the morbid phenomena of the organic functions. The congestion necessarily follows the prostration of the active circulating forces. The pulmonary capillaries, the heart, and the systemic capillaries are all enfeebled; the blood, therefore, collects in the veins and in the great internal organs, especially in those connected with the portal circulation. Hence the congestion of the liver and spleen. When the circulatory movements return with their wonted activity, under the restored innervation, the congestion is speedily dissipated.

"In the cerebral cases, the deranged innervation is experienced primarily and chiefly in the lobes of the brain. The organic functions are at first comparatively unaffected, the heart often continuing to act with energy, and the surface to retain its warmth, when the patient is quite insensible. That the affection is chiefly nervous, is to be inferred from its periodicity. There may often be congestion; there may sometimes be inflammation of the brain. But the presence of an excess of blood is probably due less to increased determination, than to stagnation in the capillaries. The color of the cortical portion is described by M. Maillot as approaching to black. The brain differs from other organs in the circumstance of occupying a closed cavity, into which atmospheric pressure

alone would force the blood, so that the feebleness of the capillaries cannot here be followed by paleness as upon the surface. The vessels must always be full, or the vacuity must be compensated by effusion. Redness, therefore, and serum in the ventricles are not necessarily signs of over-excitement. But I am not disposed to maintain, that the cerebral affection in these cases is certainly the result of diminished sensorial action. It may be so; or it may proceed from some other derangement of that action. All that I would maintain is, that the affection is essentially nervous; and that upon this the danger depends. The patient dies, not because he has too much blood in his brain, but because the brain becomes incapable, from the direct influence of the morbid cause, of performing the functions essential to life. This question is not merely speculative. It is on the contrary highly practicable; and its decision, one way or the other, may greatly influence the treatment. If the disease be considered in the light of apoplexy or cerebritis, copious bleeding would suggest itself as the appropriate remedy; if it be nervous, we must look for safety to some means capable of strongly impressing the nervous system."—(Vol. i, 290, '91, '92.)

The indication, if the patient is seen in the paroxysm, is to bring about reaction as soon as possible. This is to be effected not by bleeding and large doses of calomel, as formerly recommended and practiced, but by artificial heat, and stimulants applied externally, and largely given internally. Where the brain is seriously involved, with a tolerably strong pulse, a vein may be opened in the arm, and cups or leeches applied to the temples; but in no other case is bleeding proper. Where there is excessive vomiting, or exhausting diarrhœa, or hemorrhage, opium and the astringents must be used along with the stimulants. Quinine may also be given during a paroxysm, for its excitant influence on the nervous centres, and also in reference to the next paroxysm. The application of cold water by affusion is favorably spoken of by Dr. Wood. But as soon as an intermission or remission has been obtained there is but one course of treatment. Sulphate of quinine must be given without delay at any and all hazards. If the apyrexia is short, the doses must be large; if the apyrexia is longer, the doses may be smaller; in both cases they

should be given so that the whole quantity may be swallowed two or three hours before the time for the recurrence of the paroxysm.

Typhoid fever we find discussed at some length. The author does not regard it as contagious, or at least but feebly so. We cannot follow him in his description of the symptoms, but we subjoin the diagnosis.

"The most characteristic symptoms of this disease are the frequently slow and insidious mode of attack, the diarrhea at the beginning or soon afterwards, the dull or heavy expression of countenance, the dusky hue of the face, the tendency to epistaxis, the cough and bronchial rales, and, after the seventh or ninth day, the dryness of the tongue and general diminution of the secretions, the rose-colored eruption, the sudamina, the tympanitic abdomen, the deafness, the stupor or delirium, and the various signs indicative of the typhus state. The enlargement of the spleen, either sensible to the touchor discoverable by percussion, may have some weight in the diagnosis. The duration of the disease, exceeding generally that of other fevers, is also an important diagnostic character. It must not, however, be understood, that all these symptoms are necessarily present in every case. The diagnosis may be very certain, though many of them should be absent.

"One of the diseases with which enteric fever is most frequently confounded is the remittent or bilious fever. The latter, however, may usually be distinguished by its more regular and decided remissions, by the bilious vomiting and yellowness of skin which frequently attend it, by its shorter duration and its tendency to end in intermittent, and by the absence or rarity of the characteristic symptoms of enteric fever, such as diarrhœa, epistaxis, dingy complexion, hebetude of expression, stupor, tympanites, and rose-colored spots. Typhus symptoms are much less common in bilious than in enteric fever. Dissection confirms the diagnosis. While in bilious fever the stomach is more frequently inflamed, and the liver discolored than in the enteric; the spleen is less diseased, and there is a total absence of the affection of the glands of Peyer, and of the mesenteric glands, characteristic of the latter complaint. Sometimes, however, the diagnosis is very difficult, especially when the bilious fever assumes the protracted typhoid form. I believe that, occasionally, the two complaints are commingled, in consequence of the co-operation

of their causes. Thus, cases having all the essential characters of enteric fever occasionally end in intermittent; and bilious fevers, or affections which cannot be distinguished from them, sometimes show the signs of enteric fever during their progress."—(Vol. i, pp. 329, '30.)

From typhus fever it cannot always be clearly distinguished. The author suggests that now and then the two diseases exist conjointly. The most important points of difference are thus stated.

"Typhus fever less frequently commences insensibly than the enteric, and is, upon the average, of considerable shorter duration. Instead of the diarrhœa, or extraordinary susceptibility to the action of purgatives, which attends the latter disease, it is usually characterized by constipation; and when fecal discharges are obtained, they are usually darker and more offensive. But hemorrhage from the bowels, which is not unfrequent in the advanced stages of enteric fever, seldom occurs in typhus. In the latter complaint, epistaxis at the commencement is less frequent; there is more stupor and a darker color of the face, more turbidness of the conjunctiva, and much greater debility. The eruption in typhus also differs from that of enteric fever. It generally commences earlier; is not elevated as the other; is less regularly round or oval, is of a darker, more livid hue; does not so readily disappear under pressure, and is often unaffected by it; is much more abundant; and, instead of being confined chiefly to the abdomen and chest, is found equally upon the extremities, and is often diffused over almost the whole body. In typhus fever the abdomen is often flat, and perfectly free from tympanites, which is never the case in the enteric. The signs of consolidation of the posterior part of the lungs are much more frequently present in the former, and the dry sabilant rales of bronchial inflammation in the latter.

"The anatomical characters of the two diseases are very different. The peculiar disease of the glands of Peyer, and of the mesenteric glands, so constantly present in enteric fever, is never found in typhus, or so seldom as to lead to the suspicion of some intermixture of diseases when it does occur. The spleen, too, is much less frequently enlarged and softened in the latter.

"There are other points of difference in the persons attacked, and the circumstances under which the diseases originate.

Thus, enteric fever almost never attacks the old, who are very frequent victims of typhus. The former disease is endemic in various countries, arises here and there (sporadically) without any obvious cause, and, if ever contagious, is very feebly and very rarely so; while typhus seldom occurs in isolated cases, is often long absent from countries where it occasionally prevails, is always contagious, and often epidemic."—(Vol. i, p. 346.)

According to the author typhoid fever is not a very fatal disease. As the result of his own observation few serious diseases exhibit more happily the controlling influence of treatment. Though the complaint cannot be suddenly interrupted, yet it may be materially shortened, and often conducted to a favorable issue, when without treatment it would end in death. "No case," says Dr. Wood, and we beg the reader to mark it, "no case should be looked upon as absolutely desperate. There is no condition so low, no symptom so fatal that death should be considered inevitable. It is only in articulo mortis that the case should be given up." But the prognosis must always be cautious, as no case, however light it may be, can be regarded as absolutely free from danger. Intestinal perforation, the most desperate of all the symptoms, is liable to occur in the mildest cases.

The treatment recommended can be stated in a few words. In the beginning, and throughout the disease, there should be thorough evacuation of the bowels by the milder purgatives, or, if the stomach is irritable, by enemata. Often this is not necessary, as the evacuations are spontaneous and free. Bleeding in many cases is wholly uncalled for. It will not arrest the disease, and as this is apt to be protracted, the strength of the patient must be husbanded. As in remittent fever, bleeding is useful only to prevent or control local and disorganizing inflammation. When this is not present, and the pulse is not full and strong, it is better to omit it. When employed it should be in the first four or five days. Local bleeding by cups and leeches may be employed at any stage, unless the debility is very great, to obviate local inflammation or sanguineous determination. Refrigerant diaphoretics, as in the

remittent form, are useful from the commencement. The citrate of potassa, in the form of neutral mixture or effervescing draught, is a favorite with the author. It may be combined with a little antimony, when the pulse is pretty firm and the stomach is not irritable; or, to fulfil other indications, with laudanum or some other preparation of opium. Cold ablutions, or sponging of the legs, arms, and temples, will be useful. Local affections will require attention: obstinate headache must be treated by leeches, and cold water or ice in bladders; tenderness in the abdomen by leeches or cups, and large mush poultices steadily applied day after day—sometimes a blister; diarrhœa, if exhausting, by small doses of opium and ipecacuanha, with acetate of lead, rhatany, tannic acid, &c.

This treatment, in the more favorable cases, will frequently prove sufficient. But very often about the seventh or ninth day, while there is no diminution in the violence of the disease, the energy of the vital actions has abated. There is a general deficiency of secretion, the tongue is dry, the skin dry, and the urine scanty. The pulse is more frequent, but less strong and full. There may be delirium or increase of stupor, and tympanites. Now is the time for disorganizing inflammation; and to prevent or cure this, and restore the suspended secretions, there is no remedy equal to mercury in minute doses, continued until the gums are slightly touched. Dr. Wood prefers the blue mass, as the impression must be made in the mildest way. Should the symptoms not yield, especially if the tongue remains dry and the abdominal distention undiminished, the oil of turpentine is strongly recommended by him.

"I cannot too strongly impress upon the profession my convictions of the importance of this medicine. It may be employed in all cases, in the advanced stages of this disease, when the tongue is dry, and the pulse not strong. But there is a particular condition, and that a not uncommon and sometimes a very dangerous condition, in which I have often employed it, and hitherto have in no one instance known it to fail. In the description of the symptoms, it was stated, that, in the latter period of the disease, the tongue, instead of cleaning gradually from the edges and tip, often parts with

its fur quickly and in large flakes, generally first from the middle or back part of the surface, which is left smooth and glossy, as if deprived of its papillæ. It was also stated, that if, after this process, the tongue remain moist, a slow convalescence may be pretty confidently calculated on. But it not unfrequently happens, that, during the progress of the cleaning process, or after its completion, the surface of the tongue becomes quite dry, and the process, if not finished, is suspended. At the same time, there is generally an increase of the tympanites, and an aggravation, or certainly no abatement, of the other symptoms. Two cases of this kind I had seen terminate fatally, one in my own practice, and a second in that of a medical friend. One of them was examined after death; and ulcers were found in the ileum near the illeo-cœcal valve. This case happened so early as the year 1823. Ascribing the aggravation of symptoms which attended the drying of the tongue, after cleaning, to the occurrence of ulceration in the ileum, I inferred that the oil of turpentine, which had been recommended in ulcerations of the intestines, might prove useful here, and determined to employ it in similar cases. I did so, and, as before stated, have never yet found it to fail, under the circumstances mentioned, though I have had frequent occasion to resort to it, both in private and public practice. It acts in some measure as a stimulant, but chiefly, I believe, as an alterative to the ulcerated surfaces in the intestinal mucous membrane. It should be given in doses of from five to twenty drops every hour or two, and is best administered in emulsion with gum arabic, loaf sugar, and water; a little laudanum being occasionally added, if it disturb either the stomach or the bowels. In the course of twenty-four, or at most forty-eight hours, some amelioration of the symptoms may be observed. The tongue becomes gradually moister, and covers itself with a whitish fur; the tympanitic distension ceases to augment, and after a time diminishes; the pulse becomes less frequent, and the skin less dry and harsh; and the patient enters slowly but regularly into convalescence, often without any other remedy. As the case improves, the quantity of the oil should be diminished; but care should be taken not to omit it too hastily."—(Vol. i, pp. 333, '34.)

We have filled our allotted space without having noticed half of the subjects marked for that purpose. We assure the reader that he will find in this treatise a body of sound precepts, clearly, correctly, and even elegantly expressed. C.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Treatment of Dyspeptic Headache. By GEORGE CHAPLIN CHILD, M. D.—[We have extracted the following practical remarks from a work which we shall further analyze in our Report. They embody the views of a man who has evidently had considerable opportunities of studying dyspepsia, and its various forms. He observes that:]

There is, perhaps, no single dyspeptic symptom that causes greater suffering than headache, or of which patients are more anxious to be relieved. Many apply on account of headache solely, without suspecting that it depends on a disordered stomach; and others, although aware of this, know also that the radical cure of their complaint is likely to occupy a considerable time, and they would, therefore, feel grateful if some palliative could be devised meanwhile to lessen present suffering.

The headache following a debauch in eating and drinking, seldom requires any special treatment, provided the stomach were previously in a sound state. The erythema of the mucous membrane subsides within forty-eight hours, and with it the symptomatic headache. In slight cases, if the headache be attended with collapse and debility, a little food or a dose of sal volatile in some aromatic infusion often does good.

After gross dietetic errors in persons whose stomach is already in a morbid state, the headache is apt to last for several days, and to be accompanied with various febrile symptoms. The gastric mucous membrane is, in fact, acutely inflamed; and should there be nothing to contra-indicate it, the best treatment is to apply six or ten leeches to the epigastrium. When the headache has persisted for any considera-

ble period, it may bring on determination of blood, and it may then be advisable to cup or leech the nape of the neck, or to apply leeches to the feet, and afterward promote bleeding and revulsion by hot pediluvia.

In violent gastric and bilious headache, and in those where there is throbbing, cold applications, as bags of ice, are extremely useful, and at the same time, grateful to the patient; or the forehead may be occasionally moistened with a lotion containing one part of acetic ether diluted with four parts of water; ether alone, to produce the full refrigerant effect, or combined with some anodyne, as tincture of aconite.

As the primary irritation in the stomach arises from food acting on morbidly-sensitive nerves, it is always necessary to remove the exciting cause, as far as practicable, by enjoining a spare and bland diet. The undue sensibility of the stomach, as well as the predisposition to secondary pain in the nerves of the head, ought likewise to be temporarily blunted by anodynes. Of these, the extract of belladonna (gr. $\frac{1}{8}$ to $\frac{1}{4}$), or of henbane (gr. iij.), with ipecacuanha (gr. $\frac{1}{2}$), made into a pill with confection of roses, and given thrice daily, is the most useful.

In London, and probably in all large towns, the most frequent cause of headache is bilious congestion, to relieve which no remedy equals an emetic, as it strikes at the root of the disorder by thoroughly unloading the liver. This plan of treatment is nearly always admissible, for it is a mistake to suppose that an occasional emetic permanently weakens the stomach even of a dyspeptic. An emetic, however, is now an unfashionable remedy, and, what may be fairly allowed to have more weight, it is certainly a most disagreeable one. When, therefore, from this or any other reason, it cannot be given, our next best plan is to excite brisk action of the bowels, and thus drain off from the liver the suppressed or pent-up bile. At the same time, patients should be warned that drastic purgatives attain the proposed end only by the irritation they produce, first in the stomach and then in the duodenum and bowels, and that this excitement cannot fail to do mischief in cases of dyspepsia. Not only do drastic purgatives cause more irritation than an emetic, but they also unload the liver less effectually. The action of the latter is soon over, and one of its chief advantages is, that it obviates the necessity of giving large quantities of strong physic. All purgative medicines do not seem equally efficacious in procuring the downward evacuation of the bile. The best are calomel (gr. iv. to vj.), compound extract of colocynth (gr. x.), com-

pound powder of jalap (℥ss.), and sulphate of manganese (gr. x.), in half a tumblerful of water. When this last medicine does not produce sickness, it may be given for several days in succession without inconvenience, as its cholagogue power is great in comparison to its drastic properties.

The headache, observed in some dyspeptics, may be either entirely excited, or aggravated, by uterine irritation. I have the notes of several cases of indigestion before me, wherein the patients were not liable to headache at all, except just before the monthly periods. The same fact may be remarked in mennorrhagia, and in other diseases of the uterus attended with irritation. If amenorrhea be conjoined with dispepsia, the headache will probably be worst at the time when the catamenia ought to appear, which is often marked by what is called a molimen, or effort of nature to bring on the secretion, denoted by feverishness and an increase in the uneasy sensation usually felt—namely, pain in the back, abdomen, etc. The application of from two to six leeches to the groin, at this particular period, often causes the discharge actually to appear, and in other cases proves so good a substitute for it, as to relieve nature, and cut short the headache. Warm stupes across the abdomen ought to be perseveringly employed.

When headache is complicated with plethora, or determination of blood to the head, leeching or cupping at the nape of the neck may be necessary. The excess of blood, however, is often local only; or, on the contrary, the absolute quantity of it in the body may even be below the healthy standard.—In such cases, it may be of consequence to avoid depletion, and it will generally be found that the lost balance may be corrected in the circulation by dry cupping and blisters, or other modes of counter-irritation applied to the epigastrium, together with synapisms to the legs, and hot pediluvia.—*Ranking's Abstract.*

On the Treatment of Fever by Cold Water. By William Gill, M. D., Physician to the Nottingham Dispensary, &c.—[In our last volume, p. 3, the reader will find a communication by Mr. Stallard, of Leicester, upon the efficacy of the external application of cold water as a refrigerant and sudorific in fever; we continue the subject by the following abstract of a paper which was read at the last meeting of the Provincial Medical and Surgical Association.]

Before entering more immediately on the object of this paper, the author describes concisely the general features of the prevalent fever. In most cases the *immediate* cause of the attack was traceable to sleeping in crowded lodging-houses, the usual abode of fever in large cities; the proximate causes, doubtless, were over-fatigue, and insufficient and unwholesome food. The term "hunger pestilence" has been aptly applied to the disease. A true typhoid gastro-enterite was present in many of the patients, closely resembling what so frequently is observed in the Parisian hospitals. Whether the essentiality of the fever existed in the condition of the muco-alimentary membrane or not, it was not the author's intention to discuss. This, however, he remarked, that *so soon* as the signs of gastro-alimentary irritation were subdued, the signs of general fever subsided. Some two or three cases, which he read, corroborate this observation. In the generality of patients under his care, not only was the gastro-alimentary membrane affected, but also the muco-pulmonary, as evidenced by cough, shortness of respiration, and frequently universal sonorous râles, affecting the whole of the chest. In most of the Irish sick, the skin was spotted with petechiæ, of different sizes and colors, chiefly developed on the abdomen and chest. This was not remarked amongst the English cases. There was no discharge of blood from the inner membranes. Œdema of the lower extremities occurring early in the disease was generally a fatal symptom, though we had two cases of recovery in boys, who were universally anasarcous from the commencement. The disturbance of the sensorium was marked by low muttering delirium, sometimes wandering about the bedroom, constant picking at the bedclothes, and subsultus tendinum. Some were affected with a heavy, comatose, and stupid state, from which they were with difficulty aroused, and when aroused, with difficulty were made to understand questions; they relapsed immediately into the same lethargic condition when left to themselves. This comatose condition often continued till convalescence was established, and in some even later. It seemed a perfect prostration of all mental energy, and was only relieved as the bodily powers regained their tone. In no one case did active delirium occur. The secretions from the bowels were thin, frequent, black, and offensive, and often attended with severe griping, but no bloody discharges. The function of the bladder in one or two individuals was suspended, and it was necessary twice daily to use the catheter. The usual period of the termination ol the fever seemed to be from the

eighteenth to the twenty-first day, at which time the patients were left in a state of the greatest prostration. When the case terminated fatally, an unrousable, unconscious coma closed the scene. The usual symptoms of fever were generally present,—as the hot dry skin, black tongue, urgent thirst, pulse varying from 90 to 130, insomnia, and pains in head, back, and limbs, &c. After this brief description of the general features of the disease, he proceeds to the treatment.

He remarks that he is well aware that a great prejudice exists in the profession against the treatment to be advocated, partly because it is opposed to preconceived opinions, and chiefly from the unprofessional manner in which it has been ushered into notice. Feeling certain, however, that he was addressing a body of gentlemen willing to receive *truth* for the *sake of itself*, he, with perfect confidence, detailed a treatment of fever as yet untaught in the schools, and generally unrecognized by the profession.

Dr. Currie, of Liverpool, was the first scientific English physician, who enlisted cold water as an external remedial agent in the treatment of fevers. Successful as the practice was under his direction, it has been little followed in later times. It is only within the last few years that the prejudice which existed against the internal and external use of water has begun to subside. "Perhaps," observes the author, "the prominence of the sanatary questions, and the many evils proved to arise from the want of a due supply of pure water, has had much to do in removing this groundless prejudice, and may have produced an undue reaction in its favour, causing it to be considered *not only* as necessary to a healthy condition, but as a *curative agent* of universal efficacy. Hence, perhaps, the public mind has been somewhat prepared to receive the hydropathic theory with much more favour than its intrinsic merits demand. An universal remedy will ever find many advocates, and, in a numerous profession like ours, there are ever men to be found who, from selfiish motives, will pander to this diseased taste of the public mind. We, as an association, must ever protest against such exclusive theories as prevail in our days, being in our opinion unscientific, opposed to experience, and calculated to lead to incorrect views respecting the power of many known and valued medicinal agents. In making this protest against any exclusive theory for the cure of diseases, we must not rush into the opposite extreme, and, from disbelief of their universal efficacy, deny their particular efficacy, when the touch-stone of experience speaks to the contrary."

The plan the author has adopted for the cure of fever, has been a modification of Dr. Currie's. Instead of pouring buckets of cold water over the body, he has it enveloped in a wetted sheet, an instrument more effective than Currie's in reducing the temperature of the body, and producing a warm and comfortable perspiration, which did not uniformly follow his plan. The fear of evil consequences from this treatment is groundless. He gives no opinion as to its ultility, except in cases of fever. Here, however, he states that he can speak with confidence. When the skin is burning hot, and the mouth and tongue parched, the application of a sheet wrung out of cold water, and applied *closely* to the whole surface of the body, and evaporation prevented by the application of three or four blankets placed over it, produces a most grateful feeling of refreshment, which is soon followed by a more or less warm perspiration. In young people, this perspiration breaks out in from five to ten minutes after its application; in middle-aged people the period is longer. Many uncomfortable sensations are soon relieved by its use; such as the muscular pains in the back, thighs and legs, and the sense of aching and weariness; the thirst often becomes less, and even the dry tongue sympathises with the relaxing influence induced on the cutaneous surface. He has seen the low moaning delirium subside whilst under its use; and some patients, who have not slept before, doze, especially if the hair has previously been cut short, and a flannel nightcap, wetted with vinegar and water, been applied to the head.

The simple plan he has followed has been this:—On a flock-bed he has placed from three to five blankets, superimposed over these, a sheet wrung out of cold water, on which the patient, stripped, is placed, with legs outstretched, and arms to the side; the sheet is then drawn tightly around, up to the neck, and inclosing the feet; first, one blanket, then another, and so on to the whole number, are tightly drawn over the sheet, so as to have the *whole body well and closely packed.* In this state, the patient lies from a quarter of an hour to one or two hours, according to the object in view, and the effect produced. Some get tired at the end of half an hour, some can continue for one or two hours, and feel very comfortable. As soon as a gentle perspiration commences, a wineglassful of water is given frequently. At the commencement of this treatment, in a case of fever, he has generally ordered its use for one hour; after that time the wet things are removed, and the sick person is placed in a bed, well wrapped in three blankets, and allowed to perspire for three hours; afterwards, the

blankets are to be carefully removed, one at a time, so as to allow the perspiration to subside gradually, and the patient is then placed in bed, between the sheets.

During the whole of this period, small quantities of water should be given. In the summer, during this process, a free ventilation may be allowed in the chamber, in winter it is necessary to have a good fire, and to have one blanket well warmed, to apply around the body, so soon as removed from the wet sheet.

Several cases of incipient fever have lost all traces of disease after the first application. If the fever be not reduced, the next day the same plan must be repeated, keeping the patient in the wetted sheet from half an hour to one hour, according to the intensity of the symptoms, and in the blankets from one to two hours. This may be repeated every day till indications of *a cool* skin arise, then it must be immediately discontinued.

During some period of this treatment, the temperature of the atmosphere being very high, (75° to 78° in shade,) the author has not found it advisable to keep the patient as long as two hours sweating in the blankets; from half an hour to one hour was sufficient. A longer period caused the pulse to be accelerated instead of lowered, which latter is the usual effect of the treatment. In very hot weather, when a free perspiration has been induced at the commencement of the fever, he has adopted the following plan. To wrap the sick person for half an hour in the wet sheet, covered lightly with one blanket; to be then washed all over with a towel wetted with tepid water, then rubbed dry, and placed in bed between the sheets. He has not found it necessary to make use of this treatment more than five times to the same individual; generally, after the third or fourth application, the skin becomes cooler, and the other signs of fever gradually subside. When the skin becomes cool, and the tongue less dry, he has instantly discontinued all water remedies, and given bark, wine and broths, and it was surprising how soon convalescence and strength became established. During the whole course of the fever, milk and water, or weak broths, were allowed *ad libitum*. In one person, twice in the course of the same day, owing to the intensity of the fever, it was found necessary to repeat the wet sheet, using it the second time for only half the period of the first; a comfortable night ensued.

Without doubt, this is a most effective mode of *quickly* reducing the temperature of the body; an equilibrium is soon established between the cold of the water and the heat of the

body, and the patient becomes bathed in a natural vapor-bath, as may be felt by placing the hand under the bedclothes. Where the fever runs high, and the delirium is violent, the wet sheet may be safely applied for short periods (two minutes,) several times in the course of the day. This will be found a more effectual mode of reducing the cerebral excitement, than any other means with which we are acquainted. This refrigerating plan, used for ten minutes, during an evening exacerbation, will often produce a few hours' refreshing sleep.

The author confesses that he had, at first, great doubts as to the *safety* of this treatment, where the mucous membranes of the bronchi and gastro-alimentary passages were complicated. Very soon his fears on this head were dissipated by the convincing evidence of experience; in fact, *these* proved the cases in which the decided benefit of the treatment was most marked. The quick and embarrassed respiration, dry cough, and sonorous râles, subsided quickly after one or two applications of the wet sheet; the cough became looser, the râles moister, and expectoration was established.

The same happy change also occurred where the gastro-alimentary membranes were disordered. Generally, the first wet sheet puts a stop to the diarrhœa, and soon afterwards, pain and swelling disappeared. A confined state of the bowels was frequently the effect of the wet sheet, and it was found necessary, in several of the patients, to resort to small doses of castor oil. In three or four cases, the symptoms of gastric and abdominal irritation or inflammation were so violent as to have justified the employment of leeches, calomel, and opium; and, indeed, we know that depletion by leeches is the usual treatment followed in the Parisian hospitals, and yet by the simple means mentioned, in three days every bad symptom had vanished. A great saving is made to the patient's strength, when we can dispense with the abstraction of blood.—*Ibid.*

Discharge of a Tooth from the Ear. By Mervin Coates, Great Malvern, Nov. 1847.—The following curious case happened in my practice. At the time of its occurrence I resided in the Isle of Wight. In the summer of 1846, being myself absent from home, a friend was called upon to attend an old, poor man, who had suffered for some days from severe pain over the whole of one side of the face and head, but more intensely about the ear. He found him feverish, in great pain, and incapable of opening his mouth; the pinna and skin lining

the external meatus were highly inflamed and swollen. Warm fomentations, poultices and purgatives were ordered. Two days afterwards I paid him a visit. He was then in great pain, and, otherwise, much in the same state as I have already described, but, in addition, there was an oozing of pus from the meatus, and almost entire closure of that passage by a whitish substance, which the patient conjectured to be a piece of onion, introduced there by the recommendation of some old woman, but which a probe detected to be bony. The patient declining to have this removed, he was recommended to foment and poultice. That same night a fit of sneezing forced out the piece of bone felt by the probe, which proved to be one of the wisdom teeth of the upper jaw; after that the man got well.—*London Lancet.*

Treatment of Epilepsy.—M. Plouvier, of Lisle, has presented a memoir on this disease, recommending a system of treatment, which consists in the folllowing processes:

1. The exhibition of medicines which have the power of modifying the cerebral functions. Of these he prefers the subjoined combination:

Extract of belladonna	grs. xxx;
Powdered digitalis	grs. xlv;
Indigo	ʒiiss;

Mucilage sufficient to make 50 pills.

Three or four days before the expected attack, he commences with one pill twice or three times a day, increasing the dose, if no effect is produced, until some degree of intoxication or somnolence declares itself. He then omits medicine altogether for two or three days after the attack and recommences as before. This plan is persisted in for a year or more, if necessary.

2. Cold baths. These are to be taken every day for two or three minutes. After coming out of the bath, the patient is to be enveloped in blankets to induce perspiration.

3. The boot of Junot. This is an apparatus by which great determination of blood may be induced over a large space, as both or one lower extremity, upon the principle of the cupping-glass. The apparatus is made in the shape of a boot, whence its name, and the contained air is exhausted by means of an air-pump.—*Gazette Médicale.—Ranking's Abstract.*

On the Internal Use of Nitrate of Silver in Obstinate Diarrhea and Dysentery. By Thomas Aikin, Esq.—The author of this communication remarks, that the topical application of the nitrate of silver to inflamed or ulcerated mucous surfaces is confessedly a most efficient mode of treating such cases. The knowledge of this fact may have induced physicians to employ the same remedy internally against disease invading the mucous surface of the hollow viscera. Accordingly, we find that ample testimony is afforded to the efficacy of the nitrate of silver in certain morbid conditions of the mucous coat of the stomach; but no English writer, Copland excepted (Dictionary of Medicine,) sanctions its employment as a therapeutic agent in morbid conditions of the mucous surface of the intestinal tube. The author's object in the present communication is to adduce such testimony in favor of its sanative power in these affections as may stimulate further inquiry into the action of this salt in certain obstinate forms of diarrhœa and dysentery, which occasionally resist the action of the most esteemed remedies wielded in the ablest manner.

Boudin (Gazette Méd. No. 51, 1836.) physician to the Military Hospital at Marseilles, treated fifty cases of typhoid fever (dothinenteritis,) in most of which severe diarrhœa was the most prominent feature, with the nitrate of silver thus: When the lower portion of the intestinal tract was presumed to be the seat of ulceration, enemata, containing from one to three grains, dissolved in distilled water, were administered. In most cases one enema sufficed, the symptoms undergoing speedy amelioration. In other cases the remedy was given by the mouth, in half-grain doses every half hour, [?] formed into pills with gum tragacanth, or starch, until from two to four grains were thus taken. In some instances these two modes of treatment were combined; the results were that only two of the fifty cases succumbed. Examination showed "many ulcers" on the mucous membrane in a case of incipient cicatrization—"*en voie de cicatrisation.*" There was evidence of the solution administered per rectum having passed the ileo-cæcal valve, and producing effects on the lower portion of the ileum precisely similar to those resulting from its action on the surface of the colon.

Kalt confirms Boudin's statement, having treated twenty-two cases of dothinenteritis with the nitrate of silver. Of these one died. He gave it in mixture (grs. ij to vj in decoct. salep. oz. vj;) a tablespoonful of which was taken every half hour, or hour, according to circumstances.

Hirsch of Königsberg (Hufeland's Journal) found the nitrate

of silver to succeed in obstinate cases of diarrhœa on the failure of ordinary remedies. It proved specially useful in the diarrhea of newly weaned infants. In "the advanced stage of such cases, when emaciation was extreme, the dejections being frequent, fetid, and consisting of a variously colored, sometimes greenish, or bloody mucus, and wanting altogether the fecal character. When apthous ulceration pervaded the mouth, and when prostration was extreme, the action of the nitrate was brilliant." He gave it to children thus:—

℞ Argent nitrat. crystall. gr. ¼.
Aquæ destill. ℥ij,
Gum mimosæ, ʒij,
Sacch. albi, ʒij. Misce. Ft. mist.

A teaspoonful of this mixture was given every two hours, and an enema, containing a quarter grain of the salt, with mucilage and a little opium, was administered. The good effects of this treatment were occasionally visible in a few hours, sometimes not until the second day. He pronounces it a specific in the diarrhea of infants. He found it almost equally efficacious in severe forms of diarrhea and dysentery occurring in adults. He administered it to the latter in pills, in doses varying from one-twelfth to one-twentieth of a grain every two hours. For this purpose he recommends liquorice powders as preferable to the vegetable extracts which effect its decomposition. He also gave enemata, containing half a grain or a grain, with mucilage and opium.

Canstatt also extols the nitrate of silver as prescribed by Hirsch in the diarrhea ablactatorum.

Since the author became acquainted with Hirsch's observations, opportunity presented for testing the powers of the nitrate of silver in a severe case of diarrhea occurring in a child of a year old. Vomiting and purging set in, and continued with almost unabated intensity for five days. The stomach at length retained fluids in small quantities, but the purging continued. Chalk mixture, kino, opium and acetate of lead were tried, and all, with the exception of the last, seemed to increase the irritation. The dejections were frequent, greenish, sometimes bloody, and very fetid. On the sixth day prostration was very great; there was a tendency to stupor, and quantities of greenish mucus were voided.—Under these circumstances he gave the mixture as prescribed by Hirsch. The first dose seemed to increase the discharges; however, in about six hours, the character of the dejections were improved, they became feculent, and every symptom underwent a corresponding improvement.

Should the foregoing observations induce practitioners in this country to subject the action of the nitrate of silver in diseases of the mucous surface of the intestines to a more extensive tial, they may arrive at results confirmatory of those already obtained by the authorities which the author has quoted, and thereby extend the application of an agent of great therapeutic energy to forms of disease occasionally so intractable as to baffle the powers of ordinary remedies.

[The advantage of the nitrate of silver in the diarrhea of infants, of which we have had considerable experience, is also acknowledged by Bouchart (Manuel Partique des Nou-veaunés) and by Trousseau. We have given it frequently, and with much benefit also, in the "irritable" bowels of the adult. We generally prefer to exhibit it in solution, more especially in children, since, if given in pill or powder, we have no guarantee that it will not, by suddenly dissolving, exert all its effects, which, in that case, may be too powerful, upon a circumscribed portion of the mucous membrane. This is a point which is not sufficiently attended to in prescribing the nitrate of silver for gastrodynia, and sufficiently accounts for the diversity of opinion respecting its benefit in this complaint. It may be readily conceived that it makes all the difference whether half a grain of solid nitrate of silver lies in a corner of the stomach and dissolves, or whether originally in solution its action is distributed throughout the entire irritable mucous membrane.]—*Ibid.*

M. Kün's New Instrument for the Diagnosis of Tumors.—M. Kün, Professor of Physiology in Strasbourg, presented to the Medical Society of that city, an instrument, the application of which is likely to produce the most beneficial results in the diagnosis of various kinds of tumor. It consists of an exploring needle, having at its extremity a small depression with cutting edges. On plunging this instrument into a tumor to any depth, we can extract a minute portion of the tissue of which its various layers are composed. In this manner a microscopic examination of the tumor can be practised on the living subject, and its nature ascertained before having recourse to an operation. We have proved the utility of this method of diagnosis on three occasions, and seen conscientious practitioners renounce an operation previously determined on when the cancerous nature of the tumor has been demonstrated by the microscope.—*Jour. Med. Science.—Ibid.*

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MEDICAL COMMENCEMENT.

The second annual commencement in the University of Louisville—the eleventh in the school—was held on Wednesday evening, the 8th of March, on which occasion the degree of M. D. was conferred on ninety-four of the alumni of the institution. Professor Drake delivered the valedictory address to the graduates.

MEDICAL CLASSES.

The University of Pennsylvania stands first, this year, among American schools of Medicine in respect to the size of its class, which numbered, according to the catalogue, 508. Of these 47 were graduates of that and 18 other institutions. The Jefferson Medical College ranks next to the University, the catalogue showing that the number of its students was 480, of whom 58 were graduates. Not having seen a catalogue of the University of New York we cannot say whether that or the University of Louisville comes next. Of the 406 students in attendance at the latter, 13 were graduates. The catalogue of the medical department of

Transylvania University embraces the names of 167 students, of whom 5 were graduates, and 17 were students in the Academical department and attended only the chemical lectures. The class of the Starling Medical College numbered 138, of whom 4 were graduates. The number of medical students in the Western Reserve College was 240, three of whom were graduates. The catalogues of the other medical schools of the country have not yet been received.

DEATH OF PROFESSOR RANDOLPH.

The Philadelphia papers announce the death of JACOB RANDOLPH, M. D., Clinical Professor of Surgery in the University of Pennsylvania, which took place in that city on the 29th of February. Dr. Randolph enjoyed a high reputation as a surgeon, and was universally esteemed by his brethren for the correctness of his professional deportment, and the uprightness of his entire life. As a lithritotist he was unrivaled in this country. A biographical memoir of the deceased is to be prepared by Dr. Norris, for the Philadelphia College of Physicians, of which Dr. R. was a member.

FACULTY OF MEDICINE OF PARIS.

The provisional government of France, for reasons which, no doubt, will be given in due time, has removed the venerable Orfila from his office of Dean of the Faculty of Medicine of Paris, and appointed Bouillaud in his place.

SUBSIDENCE OF CHOLERA.

The *Medical News* (Philadelphia) contains the following intelligence, copied from the London Medical Gazette:

"Intelligence has been received from St. Petersburgh up to the date of the 29th January (17th, O. S.) The following remarks on the subject of the cholera have been published by Dr. Thielmann, in the *Russian Medical Gazette.*

"During the month of December the severe cold so completely arrested the progress of Asiatic cholera, that there was reason to believe it would disappear entirely. It has altogether ceased in the provinces around the Caspian; and with the exception of Moscow, Mohilew, and Witepsk, it is no longer met with in any of the great cities or towns of the empire. Even in these, and in smaller places, the disease has assumed so mild a character, that it appears to be on the point of extinction.

"Letters from Constantinople of the 1st January announce the gradual disappearance of cholera in that city. The epidemic was then chiefly confined to the Arsenal; and out of 210 attacked, only 58 died. Accounts from Bagdad of the 7th December state that the cholera had almost entirely disappeared from Kerkoula and Suleymania. Letters from Mossol, dated the 12th of December, mention that the cholera had ceased in that city, after having killed 300 persons; and intelligence from Aleppo of the 18th, states that it has appeared at Beregik, on the banks of the Euphrates, and was causing from ten to fifteen deaths daily.

"On the whole this intelligence is highly favorable.

PROGRESS OF THE USE OF CHLOROFORM.

We continue to give under this head all the accounts published of the injurious effects of the new anœsthetic; the cases in which it has been used beneficially if published would fill our Journal.

"It is stated in the New York Express, that Mrs. Rehlsant was put under the influence of chloroform, for the purpose of having a tooth extracted. After inhaling the article, she lay lifeless for several hours, and was finally conveyed home in a state of insensibility; ultimately she recovered her mental faculties, but has since been laboring under prostration, paralysis of the tongue, and loss of voice.

"A young man in New Bedford, who inhaled chloroform for amusement, is said in the papers to have been thrown into convulsions which lasted for sixteen hours without intermission.

"In Baltimore, a medical student came near losing his life from the same cause; after inhaling chloroform for a time, he became insensible, in which state he remained one hour and a half.

"An apothecary's apprentice in Philadelphia was thown into convulsions by the inhalation of chloroform.

"A lady of Cincinnati, in the enjoyment of good health, who inhaled chloroform, preparatory to having a tooth extracted, suddenly sunk under its effects and did not revive.

"A man in New York, suddenly expired after inhaling chloroform to
› insensibility to the pain of an operation for fistula in ano."—
al News.

INTRODUCTORY LECTURES.

In several of our medical schools it is now the practice to have but a single public introductory lecture, but in most the professors adhere to the old custom of delivering a popular discourse prefatory to their several courses. These lectures are not always, nor even generally, introductory to the branches of medicine taught by the professors, but often take the widest range, and treat, if not exactly *de omnibus rebus et quibusdam aliis*, at least of so many things that it would be difficult to say what the author was driving at. Many, no doubt, are published which are written without any view to publication, and of the imperfections of which none can be more sensible than the authors themselves. But it is a question worth considering, what is gained by the publication of lectures so hastily prepared, and felt to be so crude and unfinished? If they reflect no honor upon the authors, it is certain they do no credit to the medical literature of the country. Whether it be to haste or to some other cause that we are to attribute all the defects of these introductory addresses, it cannot be denied that the faults of some are glaring enough. We would indicate, particularly, a floridness of style which is quite too prevalent. One in reading the opening of many of these lectures would fancy that he had got hold of a fourth-of-July oration. The authors seem to contemn plain prose and are never happy except when dealing in tropes and figures. It is time this taste had yielded to one more worthy of the day, and of our profession and country. It is time that we had left this turgid style to sophomores.

Among the numerous introductory lectures published last winter by the classes to which they were addressed, there are not a few which do credit to the taste, judgment, and learning of the authors; but there are also some which in point of style, would justify the utmost severity of criticism. We do not, however, propose indulging in such criticism, for which, at present, we have neither leisure nor inclination.

We need not say that the introductory of Professor Dunglison is free from the sins against which we have attempted to raise our voice. The emanations of his pen are always in good taste. So are the productions of his colleague, Professor Mitchell, whose lecture now before us is one of the best of the season. We cannot say quite so much for the taste displayed by Professor Mutter in his elaborate lecture, but the tone and temper of it cannot be too highly praised.

The lecture of Professor Bedford is the only one we have received

from New York. It is what it purports to be—an introductory to his lectures on Midwifery, and one which must have inspired his pupils with higher respect for their profession. Professor Shipman's introductory to his course on Surgery in the Indiana Medical College, is evidently a hasty production and doubtless would have been freed from certain blemishes of manner if the author had taken time to prune and retrench it.

SOLLY ON THE HUMAN BRAIN.

We are indebted to those enterprising publishers, Messrs. Lea and Blanchard, for a beautiful copy of this elaborate work. The author has given a thorough view of this important organ, its anatomy, physiology, pathology and diseases, and we are glad that his treatise has been rendered available to American readers by this publication. Any student who is ambitious of an intimate acquaintance with the brain must consult the work of Mr. Solly, which is presented, in this edition, in a form worthy of its high character.

DISORDERS OF THE CEREBRAL CIRCULATION.

The same publishers have issued the work of Dr. Burrows on *Diseases of the Cerebral Circulation*, a copy of which is before us. Like the treatise of Solly on a kindred subject, it is a well looking volume, and, without pretending to be a complete monograph on the brain, gives an exceedingly satisfactory account of all the topics discussed. It ought to be in the library of every physician, both for his own sake, and the sake of his students.

BLOOMINGDALE ASYLUM.

We have received the twenty-seventh *Annual Report of the Bloomingdale Asylum for the Insane*, by Pliny Earl, M. D., the physician of the asylum, which exhibits a favorable condition of things in the instiution. The whole number of cases in the asylum in the course of the year was 274, of which number 58 were discharged cured, 17 much improved, 23 improved, and 18 unimproved—in all 116. Four of those

who were much improved, and two who were improved, progressed rapidly to entire recovery after their return home—making the total number cured 64. A meteorological register for the year 1847 is appended to the report.

TRANSACTIONS OF THE PHILADELPHIA COLLEGE OF PHYSICIANS.

The Summary of the Transactions of the College of Physicians of Philadelphia from December 1847, to March 1848, inclusive, has been published, and contains reports and communications on a great variety of topics of professional interest. The labors of this body of physicians have the proper direction, and the fruits are creditable to the profession of our country. We shall make room at an early day for extracts from this volume of their Transactions.

CHURCHILL'S MIDWIFERY.

A new edition of this work has just been issued by Messrs. Lea & Blanchard, which contains the additions rendered necessary by the progress of obstetrical science. It is decidedly a favorite with the American profession, and the present edition, no doubt, will meet with as much approbation as the two which have been exhausted.

WHITEHEAD ON ABORTION AND STERILITY.

To the same house we are indebted for a copy of Mr. Whitehead's treatise on the *Causes and Treatment of Abortion and Sterility.* It is the result of an extended practical inquiry into the physical and morbid conditions of the uterus, with reference especially to leucorrhœal affections and the diseases of menstruation. Such are the advances made from year to year in this department of our profession, that the practitioner who does not consult the recent works on the complaints of females will soon find himself in the rear of his more studious brethren. This is one of the works which must be studied by those who would know what the present state of our knowledge is respecting the causes and treatment of abortion and sterility.

TAYLOR ON POISONS.

This very comprehensive work has also been issued by Messrs. Lea and Blanchard, in doing which they have brought the professions of law and medicine, and the public generally under obligations to them. It is safe to say that the volume of Mr. Taylor forms one of the most complete treatises on poisons extant, and that it is a work which ought to be in the hands of every physician and lawyer. It is an elaborate epitome of all that is known on the subject of poisons. The subject is one of deep interest. The crime of poisoning is unquestionably on the increase, and it is essential for the administration of justice, and for the security of society, that all the important chemical and medical facts should be collected and arranged in a form convenient for reference. And, as remarked by the author in the preface to his work, "so rapid is the advance of science, and to so great an extent is toxicology influenced by the progress of collateral sciences, that the lapse of even one year renders numerous additions and alterations necessary." We shall avail ourselves of the earliest opportunity to say more about this excellent treatise.

MATTEUCCI ON LIVING BEINGS.

This is a highly attractive volume, the reprint of which we owe to the same house. It comprises a series of lectures on the *Physical Phenomena of Living Beings*, among which are many of the most interesting known to philosophy. We regret that we cannot find room in this number for a full notice of the work, but we hope to be able to do so at an early period.

IDENTITIES OF LIGHT, HEAT, AND ELECTRICITY.

Mr. C. Campbell Cooper has produced a tract with the above title, evincive of thought and research. After the labors of Dr. Faraday few persons, we suppose, would incline to doubt the identity of caloric, light, and electricity. The argument will be found to be presented clearly and forcibly in this pamphlet, and to be sustained by a formidable array of facts. This little work is from the press of Messrs. Grigg, Elliot & Co. We owe all the works noticed above to the politeness of Mrs. Maxwell, and Mr. F. W. Prescott, booksellers in this city.

RESIGNATION OF DOCTOR BAYLESS.

The importance which the Demonstratorship of Anatomy in the University of Louisville has assumed, will justify us in noticing the recent resignation of the gentleman who has so ably and indefatigably discharged its duties, for eight years; during which the number of students, engaged in practical anatomy, was annually, 88—115—103—127—156—187—216—256. For several years, these numbers considerably exceeded half the class of the University to which they corresponded, and during the past session, the proportion was five-eighths; which, we presume, has not been equalled in the United States, and affords high evidence of the value attached to his teachings in practical anatomy, by the students of the West and South. In common with our colleagues of the University, we regret that these onerous labors should so have affected the health of the Demonstrator as to make it expedient for him to resign. His place, however, has been filled by a promising graduate of the school, Dr. T. G. Richardson, who has acted as an assistant for two sessions.

AMERICAN MEDICAL ASSOCIATION.

Professor Yandell has been appointed by the Medical Faculty of the University of Louisville a delegate to the American Medical Association, which meets in Baltimore on Tuesday, the 2d of May. The proceedings of the Association will no doubt possess unusual interest, and we have made arrangements for communicating them to our readers at the earliest day. We hope to be able to give full details in our next number.

EPIDEMIC SCARLATINA.

A correspondent at Lawrenceburgh, Tennessee, mentions the prevalence in that neighborhood of a severe form of scarlatina in which, in many instances, the patients died in 22 and 24 hours. The disease had abated at the date of his letter, April 18th. In the fatal cases the brain was the organ which seemed especially to suffer.